WPC Secondary Report

Date: 9/1/11 Day: Thursday

Start of Turn for Operation	Time & Initial 5	3	4
Check Plant	BL	M	FL
Check Aeration Tks.	BL	M	FL
Check Sludge Draw off Flow	BL	M	FL
Check Generator	BL	M	FL
Check Strainer	BL	M	FL

During/End of Turn Operation	Time & Initial 5	3	4
Clean Cl2 Probes		M	
Drain Condensate			FL
Clean Tubes @Final Clar. Tks.			
Clean Operator Lab & Meter		M	
Plant End Check	BL	M	FL
Check Finial Sampler	BL	M	FL

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1	Tk2	Tk3	Tk4
4	6	6	4

Cl2 Resdual	5	3	4
Start Shift	.27	.16	.14
Mid-Shift	.29	.18	.16

De-Cl Res.	5	3	4
Start Shift	.02	.06	.10
Mid-Shift	.03	.05	.11

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	62°	0	0	0	66°	3
End-Shift	62°	0	0	0	66°	3

Cl2 Scale	
1st	2072
2nd	2000
used	72

Mid-Shift	5	3	4
Final pH	7.34	7.24	6.96
Final D.O.	11.68	10.58	9.86
Final Temp	22°	23	22°

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.
3790	200	90	744	1210	760	250	36

Tol. Prim. Skimming	
2nd	1867791
1st	1867555
	236

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off)

~~Found~~ on third tour missed buttons due to a storm (lightning) my last button I hit was in generator room had to pump down thickened sludge pump Manually. Sludge almost above the pipe in the sludge well.

Brent Cleary 9/1/11
Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

HAD TO Bleed DAF Bubbler - MADE ADJustment ON DAF Beached flight - OPENED By PASS gate IN SCREEN Building RAIN - RAIN TO DAY HARD RAIN

MCM 9/1/11
Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

Hit misc button J. Willem showed me how to pump down bubbler gauge
Drained grease trough back by skimmer
Had to bleed bubbler gauge to pump down DAF Sludge

Brent Cleary 9/1/11
Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

City of Warren WPC

Operational Daily Data Sheet

Date: 9/1/11

Day: Thursday

Operation	Time & Initial 5	3	4	Operation	Time & Initial 5	3	4
Check Plant	BLL	M	FL	Clean Organic Return	BLL	M	FL
Check Raw Sampler	BLL	M	FL	Ran Skimmers / Hosed Down			
Check Primary Tanks	BLL	M	FL	Recirculate Scum Sump			
Check Settle Sampler	BLL	M	FL	Recirculate Sludge Holding Tk.	BLL		
Check Sludge Pumps	BLL	M	FL	Dumped Grit/Rag Pan			FL
# of Septic Haulers				Dump Pan in Screen Building	BLL	M	FL
				Plant End Check	BLL	M	FL

REPORT OFF:

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337890	1605887	5245910	87005	0	9308.1
1st	4337870	1604401	5221450	87005		9302.6
x1000	0	1486	24460	0		TOT. 5.5
M.G.D.	0	.1486	2.4460	0		

TEMPERATURE IN F			PRECIPITATION		
Max.	Min.	At Obsn.	Rain, Melt Snow	Snow ice Pel. Hail current	accum.
83	55	67	.35	—	—

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.					—		—	—			—	
P.M.	1	2	3	4	5	6	7	8	9	10	11	12

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind

GASOLINE READINGS			# Initials	Raw pH	Temp
2nd	84317	Inches	#5 BLL	7.75	Noon
1st	84256	41.0	#3 M	7.50	20
TOT.	61		#4 FL	7.64	

Removable in Cu, Yards		Main Pump Rotation Action			
Grit	Screenings	Shift	5	3	4
4		Mid	1	1-4	1
		End	1	1-2-4	1

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

Tk #1	2400	400	800	1200	1600	2000
Inches	12"	10"	12	12	20"	12"
Initials	BLL	BLL	M	M	FL	FL

#2	2400	400	800	1200	1600	2000

Tk #3						
Inches	6"	8"	6	6	24"	14"
Initials	BLL	BLL	M	M	FL	FL

#4						
	6"	6"	10	12	12"	10"
	BLL	BLL	M	M	FL	FL

Tk #5						
Inches						
Initials						

Comments:

EMPLOYEE'S NAME & HOURS

Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5										
5	Brent Ulicny	B	8				X			
3										
3	M-M	B	8							
4										
4	F Lombardi	B	8				X			

WPC Secondary Report

Date: 9/2/11 — Day: Friday

Start of Turn for Operation	5	3	4
Check Plant	BU	FL	FL
Check Aeration Tks.	BU	FL	FL
Check Sludge Draw off Flow	BU	FL	FL
Check Generator	BU	FL	FL
Check Strainer	BU	FL	FL

During/End of Turn Operation	5	3	4
Clean Cl2 Probes		FL	
Drain Condensate		FL	
Clean Tubes @Final Clar. Tks.			
Clean Operator Lab & Meter			
Plant End Check	BU	FL	FL
Check Finial Sampler	BU	FL	FL

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1	Tk2	Tk3	Tk4
10"	8"	6"	10"

Cl2 Resdual	5	3	4
Start Shift	.33	.30	.23
Mid-Shift	.28	.28	.18

De-Cl Res.	5	3	4
Start Shift	.01	.09	.02
Mid-Shift	.03	.16	.08

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	62°	0	66°	3	68°	3
End-Shift	62°	0	66°	3	69°	3

Cl2 Scale	
1st	2000
2nd	1936
used	64

Mid-Shift	5	3	4
Final pH	7.10	7.45	7.37
Final D.O.	10.01	11.67	11.47
Final Temp	22°	22°	23°

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	PROCESS CONTROL MLVSS	Polymer	Holding Tk.
3000	200	90	75	1200	700	250	32

Tol. Prim. Skimming	
2nd	1867999
1st	1867791
	208

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off)

On first tour well in DAF was drained all the way down Thickened Sludge pump was still running looked at gauge it read over 100. Turned pump off. Noticed high sludge level alarm light was still on. Hit Muse button on 2nd tour. Hydro Electric Generator was not working (fault light was on pushed faults, reset faults, start → would not start up if reset (RPM too low to start.

[signature] 9/2/11
Oper. In Charge Signature — Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

[signature] 9/2/11
Oper. In Charge Signature — Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

[signature] 9/2/11
Oper. In Charge Signature — Date

Chief Oper./Superintent / Director Remarks:

No. 3 Clairifier gear box making noise. [initials]

City of Warren WPC

Operational Daily Data Sheet

Date: 9/2/11

Day: Friday

Operation	1	Time & Initial 5	3	4	Operation	Time & Initial 5	3	4
Check Plant		BU	FL	FL	Clean Organic Return	BU	FL	FL
Check Raw Sampler		BU	FL	FL	Ran Skimmers / Hosed Down			
Check Primary Tanks		BU	FL	FL	Recirculate Scum Sump			
Check Settle Sampler		BU	FL	FL	Recirculate Sludge Holding Tk.	BU		
Check Sludge Pumps		BU	FL	FL	Dumped Grit/Rag Pan			
# of Septic Haulers			1	11	Dump Pan in Screen Building	BU	FL	FL
					Plant End Check	BU	FL	FL

REPORT OFF:

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337890	1607263	5259807	87008	0	9313.8
1st	4337890	1605887	5245910	87005		9308.1
x1000	0	1376	13897	3		TOT. 5.7
M.G.D.	0	.1376	1.3897	.0003		

TEMPERATURE IN F

Max.	Min.	At Obsn.
84	65	65

PRECIPITATION

(Rain) Melt Snow	Snow ice Pel. Hail current	accum.
.85		

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.												
P.M.												

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind	

GASOLINE READINGS

			# Initials	Raw pH	Temp
2nd	84402	Inches	#5 BU	7.66	Noon
1st	84317	40 6/8	#3 FL	7.71	210
TOT.	85		#4 FL	7.72	

Removable in Cu, Yards		Main Pump Rotation Action			
Grit	Screenings	Shift	5	3	4
		Mid	1	1	4
		End	1	4	4

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

Tk #1	2400	400	800	1200	1600	2000
Inches	14"	10"	16"	14"	12"	10"
Initials	BU	BU	FL	FL	FL	FL

Tk #3	2400	400	800	1200	1600	2000
Inches	18"	16"	12"	12"	12"	12"
Initials	BU	BU	FL	FL	FL	FL

Tk #5						
Inches						
Initials						

#2	2400	400	800	1200	1600	2000

#4	2400	400	800	1200	1600	2000
	12"	10"	FL	10"	12"	12"
	BU	BU	FL	FL	FL	FL

Comments:

EMPLOYEE'S NAME & HOURS

Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5										
5	Brent Ulicny	B	8				X			
3										
3	F Lombardi	B	8				X			
4										
4	F Lombardi	B	8	X			X			

WPC Secondary Report

Date: 9/3/11 Day: Saturday

Start of Turn for Operation	5	3	4
Check Plant	BU	TY	FL
Check Aeration Tks.	BU	TY	FL
Check Sludge Draw off Flow	BU	TY	FL
Check Generator	BU	TY	FL
Check Strainer	BU	TY	FL

During/End of Turn Operation	5	3	4
Clean Cl2 Probes		TY	
Drain Condensate			FL
Clean Tubes @Final Clar. Tks.			
Clean Operator Lab & Meter			
Plant End Check	BU	TY	FL
Check Finial Sampler	BU	TY	FL

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1	Tk2	Tk3	Tk4
4"	2"	4"	4"

Cl2 Resdual	5	3	4
Start Shift	.24	.20	.14
Mid-Shift	.26	.31	.18

De-Cl Res.	5	3	4
Start Shift	.04	.02	.10
Mid-Shift	.04	.04	.07

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	60°	0	70°	0	70°	3
End-Shift	64°	0	70°	0	71°	3

Cl2 Scale	
1st	1936
2nd	1872
used	64

Mid-Shift	5	3	4
Final pH	7.33	7.45	7.47
Final D.O.	11.21	11.63	11.50
Final Temp	23°	23°	24°

WAS SS mg /l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.

Tol. Prim. Skimming	
2nd	1868301
1st	1867999
	302

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off)

Missed button back of DAF on first tour. Beached flights some runoff raised polymer to 24. DAF is pumping down sludge in Well

Brent Ulrany 9/3/11
Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

Drained #2 + #5 primary Tanks, #2 Valve needs some Lubrication. CALLED OUT CREW / Per Welke in Lordstown, H Moore call J. Silbaugh
RAN #1 primary Sludge pump on Manual & increased RunTime High Sludge Blanket Starting to Form
RAN #3 primary Sludge pump ON Manual & increased RunTime, Floating Sludge ON #3 TANK
Increased Service water to DAF, Lowered Process Air Flow; 18-66-60 Service water 55%
Subnatant was DARK + Murky, Sludge was Running off into Sludge Well

Tom Yauger 9/3/11
Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

High Sludge in primary tank #1 ran pump on manual for 30 minutes

[illegible] 9/3/11
Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

City of Warren WPC

Operational Daily Data Sheet

Date: 9/3/11

Day: Saturday

Operation	Time & Initial 5	3	4	Operation	Time & Initial 5	3	4
Check Plant	BLL	TY	FL	Clean Organic Return	BLL	TY	FL
Check Raw Sampler	BLL	TY	FL	Ran Skimmers / Hosed Down			
Check Primary Tanks	BLL	TY	FL	Recirculate Scum Sump			
Check Settle Sampler	BLL	TY	FL	Recirculate Sludge Holding Tk.			
Check Sludge Pumps	BLL	TY	FL	Dumped Grit/Rag Pan			
# of Septic Haulers				Dump Pan in Screen Building	BLL	TY	FL
				Plant End Check	BLL	TY	FL

REPORT OFF:

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337890	1601825	527 1254	2nd 87008		2nd 9313.8
1st	4337890	1601263	5259807	1st 87008	0	1st 9313.8
x1000	0	562	11447	x1000 0		TOT. 0
M.G.D.	0	.0562	1.1447	M.G.D. 0		

TEMPERATURE IN F

Max.	Min.	At Obsn.
90°	65°	67°

PRECIPITATION

Rain, Melt Snow	Snow ice Pel. current	Snow ice Pel. accum.	Hail
0	—	—	

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.												
P.M.												

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind

GASOLINE READINGS

			# Initials	Raw pH	Temp
2nd	844.15	Inches	#5 BLL	7.68	Noon
1st	84402	40 1/8	#3 TY	7.71	21°
TOT.	13		#4 FL	7.70	

Removable in Cu, Yards

Grit	Screenings

Main Pump Rotation Action

Shift	5	3	4
Mid	4	4	1
End	4	1	1

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

	2400	400	800	1200	1600	2000
Tk #1						
Inches	8"	10"	36"	38"	40"	30"
Initials	BLL	BLL	TY	TY	FL	FL
Tk #3						
Inches	10"	12"	10"	14"	10"	12"
Initials	BLL	BLL	TY	TY	FL	FL
Tk #5						
Inches						
Initials						

	2400	400	800	1200	1600	2000
#2						
#4						
	12"	12"	12"	12"	24"	10"
	BLL	BLL	TY	TY	FL	FL

Comments: INCreased Run Time ON #1 & #3 TANK

EMPLOYEE'S NAME & HOURS Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5										
5	Brent Ulicny	B	8				X			
3										
3	T. Yaeger	B								
4										
4	F. Lombardi	B	8				X			

WPC Secondary Report

Date: 9/4/11 Day: Sunday

Start of Turn for Operation	Time & Initial 5	3	4
Check Plant	BU	TY	FL
Check Aeration Tks.	BU	TY	FL
Check Sludge Draw off Flow	BU	TY	FL
Check Generator	BU	TY	FL
Check Strainer	BU	TY	FL

During/End of Turn Operation	Time & Initial 5	3	4
Clean Cl2 Probes		TY	
Drain Condensate			
Clean Tubes @Final Clar. Tks.			
Clean Operator Lab & Meter			
Plant End Check	BU	TY	FL
Check Finial Sampler	BU	TY	FL

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1 2" Tk2 2" Tk3 4 Tk4 2"

Cl2 Resdual	5	3	4
Start Shift	.17	.14	.22
Mid-Shift	.23	.15	.19

De-Cl Res.	5	3	4
Start Shift	.03	.04	.08
Mid-Shift	.01	.04	.04

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	65°	0	70°	0	70°	3
End-Shift	62°	0	71°	0	70°	3

Cl2 Scale	
1st	1872
2nd	1800
used	72

Mid-Shift	5	3	4
Final pH	7.38	7.44	7.50
Final D.O.	11.59	11.52	11.56
Final Temp	23°	70°	23°

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.

Tol. Prim. Skimming	
2nd	1868558
1st	1868301
	257

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off)

Brent Uhing 9/4/11
Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

TWAS #2 Leaking Sludge, hosed pump and floor.
RAW #1 primary on Manual to Reduce Sludge Blanket
#3&4 Primary pumps leaking
DAF Sludge Looks good NO Run-off, Substant Clean & Clear.
39% - 4%

Tom Yaeger 9/4/11
Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

Brent Uhing 9/4/11
Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

Oper. In Charge Signature Date

City of Warren WPC

Operational Daily Data Sheet

Date: 9/4/11

Day: Sunday

Operation	5	3	4
Check Plant	BU	TY	FL
Check Raw Sampler	BU	TY	FL
Check Primary Tanks	BU	TY	FL
Check Settle Sampler	BU	TY	FL
Check Sludge Pumps	BU	TY	FL
# of Septic Haulers			

Operation	5	3	4
Clean Organic Return	BU	TY	FL
Ran Skimmers / Hosed Down			
Recirculate Scum Sump			
Recirculate Sludge Holding Tk.			
Dumped Grit (Rag Pan)			FL
Dump Pan in Screen Building	BU	TY	FL
Plant End Check	BU	TY	FL

REPORT OFF:

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337790	1608355	5285655	87008		9313.8
1st	4337890	1607825	5271254	87008	0	9313.8
x1000	0	530	14401	0		TOT. 0
M.G.D.				M.G.D.		

TEMPERATURE IN F			PRECIPITATION		
Max.	Min.	At Obsn.	Rain, Melt Snow	Snow ice Pel. Hail current	accum.
93°	67°	68°	0.26	—	—

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.												
P.M.	1	2	3	4	5	6	7	8	9	10	11	12
		—								—	—	—

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind	Rain
						X

GASOLINE READINGS			# Initials	Raw pH	Temp
2nd	84415	Inches	#5 BU	7.71	Noon
1st	84415	40 1/8	#3 TY	7.96	21°
TOT.	0		#4 FL	7.70	

Removable in Cu, Yards		Main Pump Rotation Action			
Grit	Screenings	Shift	5	3	4
	2	Mid	1	1	4
		End	1	4	4

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

	2400	400	800	1200	1600	2000
Tk #1						
Inches	24"	18"	28"	36"	40"	36"
Initials	BU	BU	TY	TY	FL	FL
Tk #3						
Inches	16"	14"	12"	Light 8"	0	6"
Initials	BU	BU	TY	TY	FL	FL
Tk #5						
Inches						
Initials						

	2400	400	800	1200	1600	2000
#2						
#4						
	14"	12"	12"	Light 8"	12	12"
	BU	BU	TY	TY	FL	FL

Comments:

EMPLOYEE'S NAME & HOURS

Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5										
5	Brent Ulicny	B	8				X			
3										
3	T. Yauger	B	8							
4										
4	F Lombardi	B	8				X			

WPC Secondary Report

Date: 9 / 5 / 11 Day: MONDAY

Start of Turn for Operation	5	3	4	During/End of Turn Operation	5	3	4
Check Plant	M	TY	FL	Clean Cl2 Probes	M	TY	
Check Aeration Tks.	M	TY	FL	Drain Condensate			FL
Check Sludge Draw off Flow	M	TY	FL	Clean Tubes @Final Clar. Tks.			
Check Generator	M	TY	FL	Clean Operator Lab & Meter	M	TY	
Check Strainer	M	TY	FL	Plant End Check	M	TY	FL
				Check Finial Sampler	off	TY	FL

(Time & Initial)

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1	Tk2	Tk3	Tk4
2"	2"	4"	2"

Cl2 Resdual	5	3	4	De-Cl Res.	5	3	4
Start Shift	.17	.19	.20	Start Shift	.04	.03	.07
Mid-Shift	.19	.20	.20	Mid-Shift	.01	.01	.09

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	0	0	68°	0	66°	3
End-Shift	0	0	67°	0	66°	3

Cl2 Scale	
1st	1800
2nd	1728
used	72

Mid-Shift	5	3	4
Final pH	7.46	7.55	7.64
Final D.O.	11.54	11.70	11.72
Final Temp	23	22°	22°

WAS SS mg /l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.

Tol. Prim. Skimming	
2nd	1868794
1st	1868558
	236

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off)

RAN #1 prim on MAN. Also Adjust. timer - DAF RUN Smooth No Run off. - 16-66-65 service Water 66
SAW Deer inside fence Line By CLAR. - RAIN HARD But flow stayed about 17mgd.

45-47

Oper. In Charge Signature: Mc[illegible] Date: 9/5/11

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

RAN #1 primary Sludge pump ON Manual Several 30min. Sessions
Adjusted Run Timers on #3 + #4 sludge pumps.

47%49%

Oper. In Charge Signature: Tom Yauger Date: 9/5/11

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

Oper. In Charge Signature: [illegible] Date: 9/5/11

Chief Oper./Superintent / Director Remarks:

City of Warren WPC

Operational Daily Data Sheet

Date: 9/5/11

Day: MONDAY

Operation	5	3	4	Operation	5	3	4
Check Plant	M	TY	FL	Clean Organic Return	M	TY	FL
Check Raw Sampler	off	TY	FL	Ran Skimmers / Hosed Down			
Check Primary Tanks	M	TY	FL	Recirculate Scum Sump			
Check Settle Sampler	off	TY	FL	Recirculate Sludge Holding Tk.			
Check Sludge Pumps	M	TY	FL	Dumped Grit/Rag Pan			
# of Septic Haulers				Dump Pan in Screen Building	M	TY	FL
				Plant End Check	M	TY	FL

REPORT OFF:

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337890	1608920	5300835	2nd 8700.8		2nd 9313.8
1st	4337890	1608355	5285655	1st 8700.8		1st 9313.8
x1000	—	565	15180	x1000 0		TOT. 0
M.G.D.				M.G.D.		

TEMPERATURE IN F

Max.	Min.	At Obsn.
78°	63°	64°

PRECIPITATION

Rain, Melt Snow	Snow ice Pel. Hail current	accum.
0.18	—	—

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.	—	—										
P.M.	1	2	3	4	5	6	7	8	9	10	11	12
											—	—

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind	RAIN
						X

GASOLINE READINGS

2nd	84415	Inches
1st	84415	1/4 1/8
TOT.	0	

# Initials	Raw pH	Temp
#5 M	7.64	Noon
#3 TY	7.77	21°
#4 FL	7.74	

Removable in Cu, Yards	
Grit	Screenings

Main Pump Rotation Action

Shift	5	3	4
Mid	4	4	1
End	4	1	1

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

Tk #1	2400	400	800	1200	1600	2000
Inches	28	29	36"	44"	44	40
Initials	M	M	TY	TY	FL	FL

#2	2400	400	800	1200	1600	2000
	10	10	8"	4" Thin	6"	6"
	M	M	TY	TY	FL	FL

Tk #3						
Inches	6	8	6"	4" Thin	6" Thin	4"
Initials	M	M	TY	TY	FL	FL

#4						

Tk #5						
Inches						
Initials						

Comments:

EMPLOYEE'S NAME & HOURS Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5										
5	McM	B	8							
3										
3	T. Yanyo	B	8							
4										
4	F Lombardi	B	8				X			

WPC Secondary Report

Date: 9/6/11 | Day: TUESDAY

Start of Turn for Operation	Time & Initial 5	3	4	During/End of Turn Operation	Time & Initial 5	3	4
Check Plant	M	TY	FL	Clean Cl2 Probes	M	TY	
Check Aeration Tks.	M	TY	FL	Drain Condensate			
Check Sludge Draw off Flow	M	TY	FL	Clean Tubes @Final Clar. Tks.			
Check Generator	M	TY	FL	Clean Operator Lab & Meter	M		
Check Strainer	M	TY	FL	Plant End Check	M	TY	FL
				Check Finial Sampler	M	TY	FL

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1 2" Tk2 2" Tk3 2" Tk4 2"

Cl2 Resdual	5	3	4	De-Cl Res.	5	3	4	Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Start Shift	.22	.23	.16	Start Shift	.03	.01	.06	Mid-Shift	0	0	62°	0	61°	3
Mid-Shift	.20	.19	.19	Mid-Shift	.03	.00	.08	End-Shift	0	0	62°	0		

Cl2 Scale	
1st	1728
2nd	1660
used	68

Mid-Shift	5	3	4
Final pH	7.62	7.71	7.59
Final D.O.	11.54	11.81	11.41
Final Temp	21	21°	22°

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	PROCESS CONTROL MLVSS	Polymer	Holding Tk.
2300	200	80	826	968	526	220	53

Tol. Prim. Skimming

2nd	1869035
1st	1868794
	241

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off)

51% 53%

PACKING ON #4 prim pump NEEDS CKing & DRAINAGE pump #1 IN Lower Sec TUNNEL.

MM 9/6/11

Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

Maint. cleaned polymer pump, polymer RUN-off into TANK #1
Keep an eye on DAF may be able to Lower polymer To help TANK #1
#2 organic squealing after cleaning.

53% - 43%

Tom Yauger 9/6/11

Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

43% + 45%
bumped polymer to 25 sludge seemed thin in tank
Hosed off primary pump sludge leaked out of primary pump #3
Had to restart hydroelectric generator 3 times during shift

Frank Gambacorta 9/6/11

Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

Oper. In Charge Signature Date

City of Warren WPC

Operational Daily Data Sheet

Date: 9/6/11

Day: Tue

Operation	5	3	4
Check Plant	M	TY	FL
Check Raw Sampler	M	TY	FL
Check Primary Tanks	M	TY	FL
Check Settle Sampler	M	TY	FL
Check Sludge Pumps	M	TY	FL
# of Septic Haulers		11	11

Operation	5	3	4
Clean Organic Return	M	TY	FL
Ran Skimmers / Hosed Down			
Recirculate Scum Sump			
Recirculate Sludge Holding Tk.	M		
Dumped Grit/Rag Pan			
Dump Pan in Screen Building	M	TY	FL
Plant End Check	M	TY	FL

REPORT OFF:

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337890	1610345	5313265	8700.8		9319.1
1st	4337890	1608720	5300835	8700.8		9313.8
x1000	0	1.425	12430	0.0		TOT. 5.3
M.G.D.						

TEMPERATURE IN F

Max.	Min.	At Obsn.
67°	56°	57°

PRECIPITATION

Rain, Melt Snow	Snow ice Pel. current	Hail accum.
0	—	—

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.												
P.M.												

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind	

GASOLINE READINGS

			# Initials	Raw pH	Temp
2nd	8446/6	Inches	#5 M	7.67	Noon
1st	8441/5	39 3/8	#3 TY	7.80	21°
TOT.	51		#4 FL	7.84	

Removable in Cu, Yards

Grit	Screenings

Main Pump Rotation Action

Shift	5	3	4
Mid	1	1	4
End	1	4	4

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

Tk #1	2400	400	800	1200	1600	2000
Inches	36	30	42"	44"	48"	40"
Initials	M	M	TY	TY	FL	FL
Tk #3						
Inches	4	6	6"	6"	4"	4"
Initials	M	M	TY	TY	FL	FL
Tk #5						
Inches						
Initials						

#2	2400	400	800	1200	1600	2000
	8	10	X	X	X	X
	M	M	X	X	X	X
#4						
	8	10	12"	12"	12"	10"
	m	m	TY	TY	FL	FL

Comments:

EMPLOYEE'S NAME & HOURS Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5										
5	M&M	B	8							
3	T. Yaeger	B	8							
3										
4	F Lombardi	B	8				X			
4										

1

WPC Secondary Report

Date: 9/7/11 Day: WED

Start of Turn for Operation	Time & Initial 5	3	4
Check Plant	M	TY	D
Check Aeration Tks.	M	TY	D
Check Sludge Draw off Flow	M	TY	D
Check Generator	M	TY	D
Check Strainer	M	TY	D

During/End of Turn Operation	Time & Initial 5	3	4
Clean Cl2 Probes	M	TY	
Drain Condensate			
Clean Tubes @Final Clar. Tks.			
Clean Operator Lab & Meter	M		
Plant End Check	M	TY	D
Check Finial Sampler	M	TY	D

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1 2" Tk2 4" Tk3 4" Tk4 2"

Cl2 Resdual	5	3	4
Start Shift	.18	.26	.23
Mid-Shift	.24	.27	.30

De-Cl Res.	5	3	4
Start Shift	.04	.02	.05
Mid-Shift	.02	.05	.05

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	Ø	Ø	60°	0	60	0
End-Shift	Ø	Ø	60°	0	60	0

Cl2 Scale	
1st	1660
2nd	1588
used	.72

Mid-Shift	5	3	4
Final pH	7.53	7.58	7.69
Final D.O.	11.51	11.63	11.72
Final Temp	21	21°	21°

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	PROCESS CONTROL MLVSS	Polymer	Holding Tk.
3300	200	80	67.8	1198	680	575	50

Tol. Prim. Skimming	
2nd	1869145
1st	1869035
	110

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off) 45-49

CALL Keith F. @ 10:40 flow Coming IN to plant Looked Muddy WATER (Not the musician) Took SAmple from RAW & DAF Sludge - HAD to Stop flights ON BEACH IN DAF

MM 9/7/11
Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

SAND Like substance THE INFLUENT from 9-6-11 is WREAKING havoc ON DAF, thin sludge dirty subnatant tried to make an adjustment. Gaining Needs to work it's way out of system Flushed Thickened Mixed Sludge Line from pumps to DAF
KEEP AN EYE ON DAF BEACH-FLIGHTS AS NEEDED.
49% - TWAS #2 only pumping @ 40 gpm on 1st Tour INFORMAL Maint. Tom Yauger 9/7/11
Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

HAD to beach DAF TANK 5 shift NEED to beach.
SLUDGE looking A little better beach 4 times.
48% - 42%
Dave McCoy 9/7/11
Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

City of Warren WPC

Operational Daily Data Sheet

Date: 9 / 7 / 11

Day: Wednesday

Operation	Time & Initial 5	3	4	Operation	Time & Initial 5	3	4
Check Plant	M	Ty	D	Clean Organic Return	M	Ty	D
Check Raw Sampler	M	Ty	D	Ran Skimmers / Hosed Down			
Check Primary Tanks	M	Ty	D	Recirculate Scum Sump			
Check Settle Sampler	M	Ty	D	Recirculate Sludge Holding Tk.			
Check Sludge Pumps	M	Ty	D	Dumped Grit/Rag Pan			
# of Septic Haulers			11	Dump Pan in Screen Building	M	Ty	D
				Plant End Check	M	Ty	D

REPORT OFF: LuBert

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids		pumping rate	Recirculate pump	
2nd	4337890	1611765	5326055	2nd	87010		2nd	9323.1
1st	4337890	1610345	5313265	1st	87008		1st	9319.1
x1000	—	1420	12790	x1000	20	D	TOT.	4.0
M.G.D.				M.G.D.				

TEMPERATURE IN F			PRECIPITATION		
Max.	Min.	At Obsn.	Rain, Melt Snow	Snow ice Pel. Hail current	accum.
66°	56°	58°	0.03	—	—

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.	—	—		—	—							
P.M.												—

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind	Rain
						X

GASOLINE READINGS		Inches	# Initials	Raw pH	Temp
2nd	84466		#5 M	7.69	Noon
1st	84466	39 2/8	#3 Ty	7.85	21°
TOT.	0		#4 D	7.50	

Removable in Cu, Yards Grit	Screenings

Main Pump Rotation Action Shift	5	3	4
Mid	4	4	1
End	4	1	1

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

Tk #1	2400	400	800	1200	1600	2000
Inches	38	36	42"	40++	40+	40
Initials	M	M	Ty	Ty	D	D
Tk #3			Sand Like			
Inches	6 Thin	6	8"	10"	12	10
Initials	M	M	Ty	Ty	D	D
Tk #5						
Inches						
Initials						

#2	2400	400	800	1200	1600	2000
Inches						
Initials						
#4			Sandlike			
Inches	10	10	16"	14"	12	14
Initials	M	M	Ty	Ty	D	D

Comments: Settled Sludge in Tanks 3 & 4 Residuals of ~~Brown~~ Sand Like Influent from 9-6-11

EMPLOYEE'S NAME & HOURS Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5										
5	McM	B	8							
3	T. Yauger	B	8							
3										
4	Dewey McCoy	B	8				X			
4										

WPC Secondary Report

Date: 9/8/11 | Day:

Start of Turn for Operation	Time & Initial 5	3	4
Check Plant	M	Ty	D
Check Aeration Tks.	M	Ty	D
Check Sludge Draw off Flow	M	Ty	D
Check Generator	M	Ty	D
Check Strainer	M	Ty	D

During/End of Turn Operation	Time & Initial 5	3	4
Clean Cl2 Probes	M	Ty	
Drain Condensate			
Clean Tubes @Final Clar. Tks.			
Clean Operator Lab & Meter	M		
Plant End Check	M	Ty	1
Check Finial Sampler	M	Ty	1

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1 4" | Tk2 6" | Tk3 4" | Tk4 4"

Cl2 Resdual	5	3	4
Start Shift	.24	.24	.24
Mid-Shift	.22	.25	.28

De-Cl Res.	5	3	4
Start Shift	.02	.07	.09
Mid-Shift	.03	.04	.07

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	0	0	0	0	0	0
End-Shift	0	0	0	0	0	0

Cl2 Scale	
1st	1588
2nd	1528
used	68

Mid-Shift	5	3	4
Final pH	7.40	7.54	7.63
Final D.O.	11.47	11.52	11.69
Final Temp	22	22°	22°

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.
2870	200	80	69.1	1158	660	575	47

Tol. Prim. Skimming	
2nd	1869330
1st	1869145
	185

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off)

429 449o

McM 9/8/11
Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

DAF has recovered well NO Run off Sludge has Thickened Keep an eye on it. They hosed ON Clarifiers shut off Final Sampler (TURN ON @ 4:00) RAN #1 primary sludge pump ON Manual to Reduce Levels Not WORKING very well Need Primary Sludge judge cleaned Getting Foggy 44%-45%

Tom Younger 9/8/11
Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

[redacted]: DAF is Looking good.
WE had A black out around 835 MIKE welke came out. Had to Reset Chlorine FEED Room still Reading at 70.°

Dewey M 9/8/11
Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

Shift 4: Turn final sampler on at 4 P.M. Clean Chlorine probes again.

City of Warren WPC

Operational Daily Data Sheet

Date: 9/8/11

Day: THURSDAY

Operation	Time & Initial 5	3	4	Operation	Time & Initial 5	3	4
Check Plant	M	Ty	D	Clean Organic Return	M	Ty	D
Check Raw Sampler	M	Ty	D	Ran Skimmers / Hosed Down			
Check Primary Tanks	M	Ty	D	Recirculate Scum Sump			
Check Settle Sampler	M	Ty	D	Recirculate Sludge Holding Tk.			
Check Sludge Pumps	M	Ty	D	Dumped Grit/Rag Pan			
# of Septic Haulers		111	11	Dump Pan in Screen Building	M	Ty	D
				Plant End Check	M	Ty	D

REPORT OFF:

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337890	1613151	5336940	2nd 870 11	0	2nd 9327.3
1st	4337890	1611765	5326055	1st 8701 0		1st 9323.1
x1000	0	1386	10885	x1000 1		TOT. 4.1
M.G.D.				M.G.D.		

TEMPERATURE IN F

Max.	Min.	At Obsn.
69°	60°	61°

PRECIPITATION

Rain, Melt Snow	Snow ice Pel. current	Snow ice Pel. accum.	Hail
0.15	—	—	

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind	Rain
						√

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.										—	—	
P.M.	—											

GASOLINE READINGS

			# Initials	Raw pH	Temp
2nd	84530	Inches	#5 M	7.65	Noon
1st	84466	39 6/8	#3 Ty	7.76	21°
TOT.	66		#4 D	7.88	

Removable in Cu, Yards	Grit	Screenings

Main Pump Rotation Action

Shift	5	3	4
Mid	1	1	4
End	1	4	4

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

	2400	400	800	1200	1600	2000
Tk #1						
Inches	38	38	44"	48"	44"	46"
Initials	M	M	Ty	Ty	D	D
Tk #3						
Inches	12	10	24"	24"	18"	18"
Initials	M	M	Ty	Ty	D	D
Tk #5						
Inches						
Initials						

	2400	400	800	1200	1600	2000
#2						
#4						
	14	13	24"	24"	20"	20"
	M	M	Ty	Ty	D	D

Comments:

EMPLOYEE'S NAME & HOURS Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5	McM	B	8							
5										
3	T. Yarger	B	8							
3										
4	Dewey McCoy	B	8				X			
4										

1

WPC Secondary Report

Date: 9 / 9 / 11 Day: FriDAY

Start of Turn for Operation	5	3	4	During/End of Turn Operation	5	3	4
Check Plant	M	FL	BU	Clean Cl2 Probes	M	FL	
Check Aeration Tks.	M	FL	BU	Drain Condensate			
Check Sludge Draw off Flow	M	FL	BU	Clean Tubes @Final Clar. Tks.			
Check Generator	M	FL	BU	Clean Operator Lab & Meter	M		
Check Strainer	M	FL	BU	Plant End Check	M	FL	BU
				Check Finial Sampler	M	FL	BU

Time & Initial

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1	Tk2	Tk3	Tk4
16"	6"	12"	4"

Cl2 Resdual	5	3	4	De-Cl Res.	5	3	4
Start Shift	.25	.24	.28	Start Shift	.05	.08	.07
Mid-Shift	.26	.25	.22	Mid-Shift	.04	.06	.08

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	0	0	61°	3	60°	2
End-Shift	0	0	61°	3	61°	2

Cl2 Scale	
1st	1520
2nd	1436
used	84

Mid-Shift	5	3	4
Final pH	7.48	off	off
Final D.O.	11.36	11.40	11.52
Final Temp	22	off	off

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.
2900	200	70	587	1192	680	575	42

37% 39%

Tol. Prim. Skimming	
2nd	1869527
1st	1869330
	197

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off)

WoRK on Scum Sump SuperNAted a Hosed on it to try & BreAK up grease - HeAvy fog came Through - RAN prim ON MANUAl.

MCM 9/9/11
Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

Door on final sampler is to left open till Sunday Am. it is completely shut off for the weekend

[signature] 9/9/11
Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

Ran Primary pumps #1 and #4 on Manual for 30 min sessions. Notified S Hafer that they are not to dump from 9/12/11 through 9/14/11 because of EPA testing. could not get a hold of BRI. Beached flights some runoff.

Brent Ulloney 9/9/11
Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

City of Warren WPC

Operational Daily Data Sheet

Date: 9 / 9 / 11

Day: Fri

Operation	Time & Initial 5	3	4	Operation	Time & Initial 5	3	4
Check Plant	M	FL	BU	Clean Organic Return	M	FL	BU
Check Raw Sampler	M	FL	BU	Ran Skimmers / Hosed Down			
Check Primary Tanks	M	FL	BU	Recirculate Scum Sump			
Check Settle Sampler	M	FL	BU	Recirculate Sludge Holding Tk.			
Check Sludge Pumps	M	FL	BU	Dumped Grit/Rag Pan			
# of Septic Haulers		11	[illegible]	Dump Pan in Screen Building	M	FL	BU
				Plant End Check	M	FL	BU

REPORT OFF:

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337890	1614485	5351765	87011		93282
1st	4337890	1613151	5336940	87011		9327.3
x1000	0	1334	14825	—		TOT. .9
M.G.D.						

TEMPERATURE IN F

Max.	Min.	At Obsn.
75°	59	64°

PRECIPITATION

(Rain) Melt Snow	Snow ice Pel. current	Snow ice Pel. accum.	Hail
.39			

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.	—	—	—								—	—
P.M.												

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind
X					

GASOLINE READINGS

			# Initials	Raw pH	Temp
2nd	84585	Inches	#5 M	7.59	Noon
1st	84530	38 2/8	#3 FL	2.69	21°
TOT.	55		#4 BU	7.64	

Removable in Cu, Yards

Grit	Screenings

Main Pump Rotation Action

Shift	5	3	4
Mid	4	1	1
End	4	1	1

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

	2400	400	800	1200	1600	2000
Tk #1						
Inches	40	40	36"	48"	40"	36"
Initials	M	M	FL	FL	BU	BU
Tk #3						
Inches	14	16	14"	12"	14"	16"
Initials	M	M	FL	FL	BU	BU
Tk #5						
Inches						
Initials						

#2	2400	400	800	1200	1600	2000

#4						
	16	16	24"	30"	24"	18"
	M	M	FL	FL	BU	BU

Comments:

EMPLOYEE'S NAME & HOURS Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5										
5	McM	B	8							
3										
3	F Lombardi	B	8				X			
4	Brent Uliany	B	8				X			
4										

WPC Secondary Report

Date: 9/10/11 | Day:

Start of Turn for Operation	Time & Initial 5	3	4	During/End of Turn Operation	Time & Initial 5	3	4
Check Plant	M	FL	D	Clean Cl2 Probes	M	FL	
Check Aeration Tks.	M	FL	D	Drain Condensate		FL	
Check Sludge Draw off Flow	M	FL	D	Clean Tubes @Final Clar. Tks.			
Check Generator	M	FL	D	Clean Operator Lab & Meter	M		
Check Strainer	M	FL	D	Plant End Check	M	FL	D
				Check Finial Sampler	off	FL	D

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1	Tk2	Tk3	Tk4
10"	10"	12"	8"

Cl2 Resdual	5	3	4
Start Shift	.24	.28	.23
Mid-Shift	.20	.18	.27

De-Cl Res.	5	3	4
Start Shift	.05	.06	.07
Mid-Shift	.06	.07	.09

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	0	0	63°	3	60°	0
End-Shift	0	0	63°	3	60	0

Cl2 Scale	
1st	1436
2nd	1360
used	76

Mid-Shift	5	3	4
Final pH	—	—	—
Final D.O.	11.33	11.29	11.23
Final Temp	22	22°	22°

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.

Tol. Prim. Skimming	
2nd	1869820
1st	1869527
	293

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off) 45% 47% Worked fill tank -

Prim RAN ON MANUAL - flush out settle sampler

McM 9/10/11
Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

47% & 51%

During my mid-shift walk pipe would not beep in screen building button
Ran primary pump #7 for 30 min b/c of high sludge

Robert Kirkhuke 9/10/11
Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

51%

Doe to All the Rain open Aeration tks Valve for 15 mins. Air.
had to bleach DAF tank 2 times Raked Screen building 3 times. By the metal grates -
Notice water shooting up by the Aeration tks called Welke about it they will get to it Monday.
he said it is a bad pipe. / Clean Cl2 Probes Chlorine feed Room Reading at 69.3 % Dewey MW 10/11
Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

City of Warren WPC

Operational Daily Data Sheet

Date: 9/10/11

Day: Saturday

Operation	5	3	4
Check Plant	M	FL	1
Check Raw Sampler	off	FL	2
Check Primary Tanks	M	FL	3
Check Settle Sampler	off	FL	1
Check Sludge Pumps	M	FL	1
# of Septic Haulers			

Operation	5	3	4
Clean Organic Return	M	FL	1
Ran Skimmers / Hosed Down			
Recirculate Scum Sump			
Recirculate Sludge Holding Tk.			
Dumped Grit/Rag Pan		FL	
Dump Pan in Screen Building	M	FL	4
Plant End Check	M	FL	1

REPORT OFF:

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337890	1616329	5377580	87011	0	9328.2
1st	4337890	1614485	5351765	87011		93282
x1000	0	1.844	25.815	0		TOT. 0
M.G.D.	0	1.844	25.815	0		

TEMPERATURE IN F			PRECIPITATION		
Max.	Min.	At Obsn.	Rain, Melt Snow	Snow ice Pel. Hail current	accum.
75	64	65	.36		

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.	—	—	—							—	—	—
P.M.	1	2	3	4	5	6	7	8	9	10	11	12
		~	—	—		—	—					

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind	RAIN
						X

GASOLINE READINGS			# Initials	Raw pH	Temp
2nd	84607	Inches	#5 M	7.71	Noon
1st	84585	31 8	#3 FL	7.71	20°
TOT.	22		#4	7.71	

Removable in Cu, Yards		Main Pump Rotation Action			
Grit	Screenings	Shift	5	3	4
2		Mid	1	1	1-4
		End	1	164	1-4

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

Tk #1	2400	400	800	1200	1600	2000
Inches	38	40	36"	48"	44"	44
Initials	M	M	FL	FL	1	1

#2	2400	400	800	1200	1600	2000

Tk #3						
Inches	16	14	12"	24"	26"	22"
Initials	M	M	FL	FL	1	1

#4						
	20	20	24"	36"	30"	32"
	M	M	FL	FL	1	1

Tk #5						
Inches						
Initials						

Comments:

EMPLOYEE'S NAME & HOURS Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5	Mc M	B	8	V						
5										
3	F Lombardi	B	8				X			
3										
4	Dewey M	B	8				X			
4										

WPC Secondary Report

Date: 9/11/11 Day: Sunday

Start of Turn for Operation	5	3	4	During/End of Turn Operation	5	3	4
Check Plant	TY	FL	DM	Clean Cl2 Probes		FL	
Check Aeration Tks.	TY	FL	DM	Drain Condensate		FL	
Check Sludge Draw off Flow	TY	FL	DM	Clean Tubes @Final Clar. Tks.			
Check Generator	TY	FL	DM	Clean Operator Lab & Meter			
Check Strainer	TY	FL	D	Plant End Check	TY	FL	DM
				Check Finial Sampler	TY	FL	DM

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1	Tk2	Tk3	Tk4
8"	10"	10"	12"

Cl2 Resdual	5	3	4	De-Cl Res.	5	3	4
Start Shift	.21	.16	.19	Start Shift	.06	.05	.08
Mid-Shift	.19	.14	.23	Mid-Shift	.02	.04	.05

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	0	0	62°	3	60	0
End-Shift	0	0	62°	3	60	0

Cl2 Scale	
1st	1360
2nd	1288
used	72

Mid-Shift	5	3	4
Final pH	—	—	7.56
Final D.O.	11.35	11.38	11.53
Final Temp	21°	21°	21°

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.

Tol. Prim. Skimming	
2nd	1870068
1st	1869820
	248

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off) 56%-57% Sewer Call 1122 Kenmore S.E. - Called out a crew.

Cleaned + Closed Manual Bar Screen (1 pump And Reduced Rag flow)

Need Kim wipes for CL2 TEST, use spairingly

Raised polymer to 26 speed, made an air adjustment (Thin Sludge, Subnatant was getting murky

Clarifier #1 button, Secondary button #9 would Not Ring on 3rd tour.

Tom Y[illegible] 9/11/11

Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

57% ⊄

starting to see coagulated grease in the aeration tanks (filmy) and also grease pathes in the inner circle of clarifier tanks as well as the grease sump back by the clarifiers

[illegible] 9/11/11

Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

~~[illegible]~~ At 8:05 notice that main pumps was not ~~[illegible]~~ Called Welke then 4 pump came back on told me if it goes back off call somebody out. Plant was at (20 million flow) at the time.

KEEP EYE ON the MAIN pump stations!

D. McCoy 9/11/11

Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

City of Warren WPC

Operational Daily Data Sheet

Date: 9/11/11

Day: Sunday

Operation	Time & Initial 5	3	4	Operation	Time & Initial 5	3	4
Check Plant	TY	FL	1	Clean Organic Return	TY	FL	1
Check Raw Sampler	TY	FL	1	Ran Skimmers / Hosed Down			
Check Primary Tanks	TY	FL	1	Recirculate Scum Sump			
Check Settle Sampler	TY	FL	1	Recirculate Sludge Holding Tk.			
Check Sludge Pumps	TY	FL	1	Dumped Grit/Rag Pan		FL	
# of Septic Haulers				Dump Pan in Screen Building	TY	FL	1
				Plant End Check	TY	FL	1

REPORT OFF:

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337890	1617256	5397477	2nd 87011	0	2nd 9328.2
1st	4337890	1616329	5377580	1st 87011		1st 9328.2
x1000	0	927	19.897	x1000 0		TOT. 0
M.G.D.	0	.927	19.897	M.G.D. 0		

TEMPERATURE IN F

Max.	Min.	At Obsn.
74	57	58

PRECIPITATION

(Rain) Melt Snow	Snow ice Pel. current	Hail accum.
.28		

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.												
P.M.	1	2	3	4	5	6	7	8	9	10	11	12

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind

GASOLINE READINGS			# Initials	Raw pH	Temp
2nd	84607	Inches	#5 TY	7.96	Noon
1st	84607	37	#3 FL	7.81	20°
TOT.	0		#4 1	7.83	

Removable in Cu, Yards		Main Pump Rotation Action			
Grit	Screenings	Shift	5	3	4
2		Mid	4	4	1-4
		End	4	1-4	4

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

	2400	400	800	1200	1600	2000
Tk #1						
Inches	40"	46"	48"	60"	4/8	4/8+
Initials	TY	TY	FL	FL	1D	1D
Tk #3						
Inches	18"	14"	24"	30"	28	26
Initials	TY	TY	FL	FL	1D	1D
Tk #5						
Inches						
Initials						

	2400	400	800	1200	1600	2000
#2						
#4						
	26"	24"	30"	12"	18	20
	TY	TY	FL	FL	1	1

Comments:

EMPLOYEE'S NAME & HOURS Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5	T. Yaugen	B	8							
5										
3	F Lombardi	B	8				X			
3										
4	Dewey McCoy	B	8				X			
4										

WPC Secondary Report

Date: 9/12/11 Day: Monday

Start of Turn for Operation	Time & Initial 5	3	4
Check Plant	TY	FL	D
Check Aeration Tks.	TY	FL	D
Check Sludge Draw off Flow	TY	FL	D
Check Generator	TY	FL	D
Check Strainer	TY	FL	D

During/End of Turn Operation	Time & Initial 5	3	4
Clean Cl2 Probes		FL	
Drain Condensate		FL	
Clean Tubes @Final Clar. Tks.			
Clean Operator Lab & Meter			
Plant End Check	TY	FL	D
Check Finial Sampler	TY	FL	D

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1 10" Tk2 12" Tk3 12" Tk4 12"

Cl2 Resdual	5	3	4
Start Shift	.15	.22	.19
Mid-Shift	.19	.18	.17

De-Cl Res.	5	3	4
Start Shift	.04	.09	.03
Mid-Shift	.05	.03	.06

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	0	0	62°	3	62	0
End-Shift	0	0	62°	3	60	0

Cl2 Scale	
1st	1288
2nd	1216
used	72

Mid-Shift	5	3	4
Final pH	7.56	7.69	7.62
Final D.O.	11.38	11.41	11.33
Final Temp	21°	21°	21°

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.
2430	200	90	79.5	1132	706	550	68

Tol. Prim. Skimming	
2nd	1870411
1st	1870068
	343

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off) 64% / 66%

Ran #1 primary sludge pump on manual. Checked pumping Rate. Flow was good, sludge was very DARK & odorou. DAF has a lot of primary sludge, Not a good mix. Raised Polymer to 27 speed made an air adjustment. HAS Not been Running off into sludge well Trying to Thicken the Sludge. Missed Last Primary Button #10 3:45 pm Tom Yaeger 9/12/11

Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

66%

Ran skimmers made an air adjustment on DAF tank main pump did not kick over to #1 today

Grant Kowalski 9/12/11

Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

70% 72%

BLEACH DAF 1 time - Ran primary 1 tank on MANUAL

Doug McC 9/12

Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

City of Warren WPC

9-12-11

Operational Daily Data Sheet

11

206 SHEET WAS SOAKED WITH WATER

Day: T

Operation	Time & Initial 5	3	4	Operation	Time & Initial 5	3	4
Check Plant	TY	FL	D	Clean Organic Return	TY	FL	D
Check Raw Sampler	TY	FL	D	Ran Skimmers / Hosed Down			
Check Primary Tanks	TY	FL	D	Recirculate Scum Sump			
Check Settle Sampler	TY	FL	D	Recirculate Sludge Holding Tk.	TY		
Check Sludge Pumps	TY	FL	D	Dumped Grit/Rag Pan		FL	
# of Septic Haulers				Dump Pan in Screen Building	TY	FL	D
				Plant End Check	TY	FL	D

REPORT OFF: Bob Dunch o

NEEDS: BLEACH

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337890	1618902	5412700	2nd 87011		2nd 9333.1
1st	4337890	1617256	5397477	1st 87011		1st 9328.2
x1000	0	1,646	15223	x1000 0		TOT. 4.9
M.G.D.	0	1.646	15.223	M.G.D. 0		

TEMPERATURE IN F			PRECIPITATION		
Max.	Min.	At Obsn.	(Rain,) Melt Snow	Snow ice Pel. Hail current	accum.
74	56	56	.03		

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.												
P.M.												

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind	

GASOLINE READINGS			# Initials	Raw pH	Temp
2nd	84607	Inches	#5 TY	7.59	Noon
1st	84607	37 2/8	#3 FL	7.71	20°
TOT.	0		#4 D	7.73	

Removable in Cu, Yards		Main Pump Rotation Action			
Grit	Screenings	Shift	5	3	4
2		Mid	4	4	4/1
		End	4	4	4/1

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

Tk #1	2400	400	800	1200	1600	2000
Inches	46"	48"	48"	48"	48	48
Initials	TY	TY	FL	FL	D	D

#2	2400	400	800	1200	1600	2000

Tk #3						
Inches	14"	16"	24"	24"	28"	26
Initials	TY	TY	FL	FL	D	D

#4						
	26"	24"	24"	28"	24"	24
	TY	TY	FL	FL	D	D

Tk #5						
Inches						
Initials						

Comments:

EMPLOYEE'S NAME & HOURS

Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5	T. Yauger	B	8							
5										
3	F Lombardi	B	8				X			
3										
4	Dewey McCoy	B	8				X			
4										

WPC Secondary Report

Date: 9/13/11 Day: Tuesday

Start of Turn for Operation	5	3	4	During/End of Turn Operation	5	3	4
Check Plant	TY	BU	FL	Clean Cl2 Probes		BU	
Check Aeration Tks.	TY	BU	FL	Drain Condensate			
Check Sludge Draw off Flow	TY	BU	FL	Clean Tubes @Final Clar. Tks.			
Check Generator	TY	BU	FL	Clean Operator Lab & Meter			
Check Strainer	TY	BU	FL	Plant End Check	TY	BU	FL
				Check Finial Sampler	TY	BU	FL

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1	Tk2	Tk3	Tk4
8"	10"	10"	8"

Cl2 Resdual	5	3	4	De-Cl Res.	5	3	4
Start Shift	.20	.21	.19	Start Shift	.04	.05	.06
Mid-Shift	.18	.27	.19	Mid-Shift	.02	.06	.10

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	0	0	61°	0	64°	3
End-Shift	0	0	61°	0		

Cl2 Scale	
1st	1216
2nd	1144
used	72

Mid-Shift	5	3	4
Final pH	7.55	7.41	7.59
Final D.O.	12.25	11.89	12.27
Final Temp	21°	21°	22°

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.
2600	200	90	81.4	1106	644	545	78

Tol. Prim. Skimming	
2nd	1870732
1st	1870411
	321

1st Tour missed Clarifier buttons

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off)

74%-78% Hit misc Button 2 Times ① Adjusted Air for DAF - Checked Adj. Subnatant End of DAF sludge falling into Subnatant well, hosed on Sludge. Made several adjustments to H2O TANK. 20-70-30. Called M. Welke Holding TANK @ 74%, to see about Equalizing to Gravity Thickener. Not yet but continue to monitor.
TANK #1 Floating sludge, High Blanket RAN several 30 min Manual Sessions.

Tom Yoaga 9/13/11
Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

Supernated grease sump also ran skimmers and hosed Weirs.
Ran primary pump #1 on Manual twice 30 min sessions. (floating sludge)
Dumped Raf Pan.

Brent Utiany 9/13/11
Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

D.O. meter is reading over "12" seeing some grease patties in clarifiers #1 & 4' adjusted air process flow 22-69-70 sludge thickened / about 9:45 pm plant reached high flow opened screen building gate

[signature] 9/13/11
Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

City of Warren WPC

Operational Daily Data Sheet

Date: 9/13/11

Day: Tuesday

Operation	Time & Initial 5	3	4	Operation	Time & Initial 5	3	4
Check Plant	Ty	BU	FL	Clean Organic Return	Ty	BU	FL
Check Raw Sampler	Ty	BU	FL	Ran Skimmers / Hosed Down			
Check Primary Tanks	Ty	BU	FL	Recirculate Scum Sump			
Check Settle Sampler	Ty	BU	FL	Recirculate Sludge Holding Tk.	Ty		
Check Sludge Pumps	Ty	BU	FL	Dumped Grit/Rag Pan			
# of Septic Haulers				Dump Pan in Screen Building	Ty	BU	FL
				Plant End Check	Ty	BU	FL

REPORT OFF: Jim Valentine,

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids		pumping rate	Recirculate pump	
2nd	4337890	1620454	5727227	2nd	87014	149.7	2nd	9338.8
1st	4337890	1618902	5412700	1st	87011		1st	9333.1
x1000	0	1552	14527	x1000	3		TOT.	5.7
M.G.D.	0	1.552	14.527	M.G.D.	3000			

TEMPERATURE IN F			PRECIPITATION		
Max.	Min.	At Obsn.	Rain, Melt Snow	Snow ice Pel. current	Hail accum.
79	56	65	0	0	0

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.												
P.M.	1	2	3	4	5	6	7	8	9	10	11	12

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind

GASOLINE READINGS			# Initials	Raw pH	Temp
2nd	84640	Inches	#5 Ty	7.73	Noon
1st	84607	33 3/8	#3 BU	7.69	21°
TOT.	33		#4 FL	7.83	

Removable in Cu, Yards		Main Pump Rotation Action			
Grit	Screenings	Shift	5	3	4
	2	Mid	4	4	1
		End	4	1	1-4

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

	2400	400	800	1200	1600	2000
Tk #1						
Inches	48"	48"	48"	48"	46"	48"
Initials	Ty	Ty	BU	BU	FL	FL
Tk #3	16"					
Inches	16"	14"	14"	12"	16"	24
Initials	Ty	Ty	BU	BU	FL	FL
Tk #5						
Inches						
Initials						

	2400	400	800	1200	1600	2000
#2						
#4						
	24"	26"	18"	14"	16"	36"
	Ty	Ty	BU	BU	FL	FL

Comments:

EMPLOYEE'S NAME & HOURS

Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5	T. Yauger	B	8							
5										
3	McM	B	8				X			
3	Brent Uliany	B	8				X			
4										
4	F Lombardi	B	8				X			

WPC Secondary Report

Date: 9/14/11 Day: Wednesday

Start of Turn for Operation	Time & Initial 5	3	4	During/End of Turn Operation	Time & Initial 5	3	4
Check Plant	Ty	M	FL	Clean Cl2 Probes			
Check Aeration Tks.	Ty	M	FL	Drain Condensate			FL
Check Sludge Draw off Flow	Ty	M	FL	Clean Tubes @Final Clar. Tks.			
Check Generator	Ty	M	FL	Clean Operator Lab & Meter		JM	
Check Strainer	Ty	M	FL	Plant End Check	Ty	M	FL
				Check Finial Sampler	Ty	M	FL

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1 6 Tk2 4 Tk3 2 Tk4 4

Cl2 Resdual	5	3	4
Start Shift	.10	.16	.20
Mid-Shift	.16	.20	.14

De-Cl Res.	5	3	4
Start Shift	.00	.03	.08
Mid-Shift	.02	.08	.10

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	0	0	0	0	65°	3
End-Shift	0	0	0	0	65°	3

Cl2 Scale	
1st	1144
2nd	1068
used	76

Mid-Shift	5	3	4
Final pH	7.40	7.32	7.48
Final D.O.	12.10	12.16	12.15
Final Temp	22°	22	22°

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.
3110	200	100	81.7	1224	748	535	55

Tol. Prim. Skimming	
2nd	187041
1st	187032
	309

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off)

RAN #1 Primary pump on Manual. END of 1ST Tour Subnatant Well Very Hig Subnatant well Showing 49.1", pump #1 Kicking off and ON Called Paul G. Switched pumps Well holding STEADY. VFD controller Needs Tested. Did flow into DAF #1 Drain Value open Aeration TANK Dewatering pump ON Auto ~~manual~~ the over flow. #2 Subnatant pump is Running MAY have to Beach Flights, Flight Location (Missing Flights) CAUSING problem

Tom Yaeger 9/14/11 67°-55°

Oper. In Charge Signature Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)

Recirculated #1 Prim. to Head of PLANT to Reduce Sludge BLANKET - ~~Drained~~ ADJUST Timer ON prim. Tks Keep WATCH ON #1 Prim you might still HAVE to RUN it ON 30 MIN MANUAL - CLEAN out Sludge Jug you CAN SEE NOW - TM Sludge Pump #2 is Leak Need packing ckd - #4 Detritus RAKE the wheel ON EAST SIDE is Dragging IN formed MECHS

55°-45° MCM 9/14/11

Oper. In Charge Signature Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)

adjusted process airflow 22-72-80 had to beach flights

Grant Gambrell 9/14/11

Oper. In Charge Signature Date

Chief Oper./Superintent / Director Remarks:

Grit Level in #4 Grit pan has Increased from Subnatant Run-over into TANK #1 Flushing Grit out of TANK.

City of Warren WPC

Operational Daily Data Sheet

Date: 9/14/11

Day: Wednesday

Operation	Time & Initial 5	3	4	Operation	Time & Initial 5	3	4
Check Plant	TY	M	FL	Clean Organic Return	TY		FL
Check Raw Sampler	TY	M	FL	Ran Skimmers / Hosed Down			
Check Primary Tanks	TY	M	FL	Recirculate Scum Sump			
Check Settle Sampler	TY	M	FL	Recirculate Sludge Holding Tk.			
Check Sludge Pumps	TY	M	FL	Dumped Grit/Rag Pan			FL
# of Septic Haulers			FL	Dump Pan in Screen Building	TY		FL
				Plant End Check	TY		FL

REPORT OFF: Mike Murray, Bob Stahl

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	4337890	1621936	5441765	2nd 87014		2nd 9338.8
1st	4337890	1620454	5427227	1st 87014	157.1	1st 9338.8
x1000	0	1,482	14,538	x1000 0		TOT. 0
M.G.D.	0	1.482	14.538	M.G.D. 0		

TEMPERATURE IN F			PRECIPITATION		
Max.	Min.	At Obsn.	Rain, Melt Snow	Snow ice Pel. Hail current	accum.
82	56	60	.01		

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.												
P.M.												

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind

GASOLINE READINGS			# Initials	Raw pH	Temp
2nd	84697	Inches	#5 TY	7.63	Noon
1st	84640		#3 M		
TOT.	57		#4 FL	7.78	

Removable in Cu, Yards		Main Pump Rotation Action			
Grit	Screenings	Shift	5	3	4
2		Mid	4	4	
		End	4	1	

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

	2400	400	800	1200	1600	2000
Tk #1						
Inches	46"	48"	48	30	48"	44"
Initials	TY	TY	M	M	FL	FL
Tk #3						
Inches	12"	12"	8	20	24"	24"
Initials	TY	TY	M	M	FL	FL
Tk #5						
Inches						
Initials						

	2400	400	800	1200	1600	2000
#2						
#4						
	18"	14"	14	24	28"	24"
	TY	TY	M	M	FL	FL

Comments:

EMPLOYEE'S NAME & HOURS Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5	T. Yauger	B	8							
5										
3	M McM	B	8							
3										
4	F Lombardi	B	8				X			
4										

1

WPC Secondary Report

Date: 9/15/11 | Day: Thursday

Start of Turn for Operation	5	3	4	During/End of Turn Operation	5	3	4
Check Plant	TY	BU	M	Clean Cl2 Probes	TY	BU	M
Check Aeration Tks.	TY	BU	M	Drain Condensate			
Check Sludge Draw off Flow	TY	BU	M	Clean Tubes @Final Clar. Tks.			
Check Generator	TY	BU	M	Clean Operator Lab & Meter			M
Check Strainer	TY	BU	M	Plant End Check	TY	BU	M
				Check Finial Sampler	TY	BU	M

(Time & Initial columns: 5, 3, 4)

Fin. Clar. Sludge Judge Reading (dayturn)

Tk1	Tk2	Tk3	Tk4
10"	8"	8"	6"

Cl2 Resdual	5	3	4	De-Cl Res.	5	3	4
Start Shift	.21	.18	.16	Start Shift	.05	.09	.02
Mid-Shift	.22	.22	.19	Mid-Shift	.04	.01	.05

Boiler	Temp	Psi	Temp	Psi	Temp	Psi
Mid-Shift	0	0	61°	0	0	0
End-Shift	0	0	61°	0	0	0

Cl2 Scale	
1st	1068
2nd	980
used	88

Mid-Shift	5	3	4
Final pH	7.46	7.40	7.41
Final D.O.	12.15	~~11.40~~ 11.89	11.93
Final Temp	21°	21°	21

WAS SS mg/l	Waste Rate gpm	SS 30 min	SVI	PROCESS CONTROL MLSS	MLVSS	Polymer	Holding Tk.
2230	200	100	94.8	1054	638	525	23

Tol. Prim. Skimming	
2nd	187408
1st	187041
	367

lding TANK
2%-24%
30-600

SHIFT 5 REMARKS (Events that are not part of daily routine or checked off) NO RECIRCULATION TONIGHT. BIO-SOLIDS RAN SHIFT 5
West side of DAF still getting some RUN-off, Made a REadjustment !!
Sludge Looks good, subnatant is clear. Too many Adjustments being made, need to Let adjustments take hold.
MAIN PUMP switched pumps @ 6:00 AM

Tom Yaugen 9/15/11
Oper. In Charge Signature | Date

SHIFT 3 REMARKS (Events that are not part of daily routine or checked off)
Opened 2nd gate at 8:30 am High flow 33 million coming in.

HT-220° -160°

Brent Ulery 9/15/11
Oper. In Charge Signature | Date

SHIFT 4 REMARKS (Events that are not part of daily routine or checked off)
MAIN pump CHANGEd over from 4 to 6 About 4:00pm - Drawing #5 prim TK - PACKING ON #2 DAF SUBNATE pump NEEDS CKd. - DAF Looked good until A 7:30 it BECAME RUNNY
ADJUSTED AIR & SERVICE WATER

MCM 9/15/11
Oper. In Charge Signature | Date

Chief Oper./Superintent / Director Remarks:

Operational Daily Data Sheet

Date: 9/15/11

Day: Thursday

Operation	5	3	4
Check Plant	TY	BU	M
Check Raw Sampler	TY	BU	M
Check Primary Tanks	TY	BU	M
Check Settle Sampler	TY	BU	M
Check Sludge Pumps	TY	BU	M
# of Septic Haulers			IIII

Operation	5	3	4
Clean Organic Return	TY	BU	M
Ran Skimmers / Hosed Down			
Recirculate Scum Sump			
Recirculate Sludge Holding Tk.			
Dumped Grit/Rag Pan			
Dump Pan in Screen Building	TY	BU	M
Plant End Check	TY	BU	M

REPORT OFF: Greg Lubert

NEEDS:

Shift Readings:

	CHAMPION	G.M./LORDSTOWN	TREATED (in CP2)	Sludge to Biosolids	pumping rate	Recirculate pump
2nd	43377890	1623450	54623375	87016		9338.8
1st	43377890	1621936	54417765	87014	1025	9338.8
x1000	0	1514	20610	2		TOT. 0
M.G.D.	0	1.514	20.610	2000		

TEMPERATURE IN F			PRECIPITATION		
Max.	Min.	At Obsn.	Rain, Melt Snow	Snow ice Pel. current	Hail accum.
72	51	51	0.46	0	0

Draw a straight line through hours precipitation was observed and a wavy line through hours precipitation probably occurred but was not observed.

	1	2	3	4	5	6	7	8	9	10	11	12
A.M.												
P.M.	1	2	3	4	5	6	7	8	9	10	11	12

WEATHER (Mark "X" for all type that occur during observed)

Fog	Ice Pell.	Glaze	Thunder	Hail	D. Wind	RAIN
						X

GASOLINE READINGS			# Initials	Raw pH	Temp
2nd	84725	Inches	#5 TY	7.86	Noon
1st	84697	30 7/8	#3 BU	7.60	20°
TOT.	28		#4 M	7.75	

Removable in Cu, Yards		Main Pump Rotation Action			
Grit	Screenings	Shift	5	3	4
		Mid	1	1,4	1
		End	4	4	1

Primary Sludge Judge Reading:

These readings are to ensure proper operations of these tanks. Adjustments of pumping time are to be made to manintain the sludge between 6 to 12 inches.

Tk #1	2400	400	800	1200	1600	2000
Inches	36"	36"	36"	28"	30	36
Initials	TY	TY	BU	BU	M	M

#2	2400	400	800	1200	1600	2000

Tk #3						
Inches	20"	12"	14"	16"	14	12
Initials	TY	TY	BU	BU	M	M

#4						
	24"	24"	18"	18"	14	24
	TY	TY	BU	BU	M	M

Tk #5						
Inches						
Initials						

Comments:

EMPLOYEE'S NAME & HOURS Job Code: (P=Primary S=Secondary B= Primary/Secondary)

	Name	JOB	HOURS	OT	SICK	VAC	W/UP	VISITOR(S)	IN	OUT
5	T. Yauger	B	8							
5										
3	Brent Ulicny	B	8				X			
3										
4	McM	B	8							
4										

OhioEPA

State of Ohio Environmental Protection Agency

Ohio EPA Form 4237
Issued 08/04

Sanitary Sewer Overflow 5-Day Follow Up Report

Report Submitted by:	
Date	04/28/11
Facility Name	610 Tod NW
Ohio NPDES Permit No.	3PE0008*KD
Period Covered by Report	04/28/2011
Contact Person Name	Greg Lubert
Contact PersonTitle	Sewer Systems Superintendent
Mailing Address	2323 Main Ave SW
City, State, Zip	Warren, Ohio 44481
County	Trumbull
Telephone No.	330-841-2591 Ext 111
E-mail Address	glubert@warren.org

Signature required at end of form

Overflow Information	
Event start date and time – if multiple locations, include information for each	04/28/2011 1300 hrs
Event end date and time	04/28/2011 1315 hrs
Location(s) the SSO – include unique ID number if one exists	1001-78-0221
Destination(s) of overflow	☐ Basement or building ☐ Ground ☐ Storm sewer to receiving water ☒ Directly to receiving water
Specific receiving water(s) (if applicable)	Mahoning River
Estimated volume (million gallons) – if multiple locations, include volume for each	.0001 mgd addressed the situation immediately
Sewer system component(s) from which release occurred	☒ Manhole ☐ Constructed overflow ☐ Pipe crack ☐ Pump station ☐ Other (explain)
Cause(s) of overflow	☐ Extreme weather ☐ Equipment failure ☐ Power failure ☒ Debris in line ☐ Roots ☐ Grease ☐ Other blockages ☐ Line deterioration ☐ Vandalism ☐ Other (explain)

Click to clear all entered information (on both pages of this form) CLEAR

Steps taken or planned to eliminate and/or reduce the overflow – include schedule of major milestones	Removed the blockage by flushing the sanitary sewer line.
Steps taken or planned to prevent reoccurrence of the overflow(s) – include schedule of major milestones	Step up the flushing cycles of this sanitary sewer line.
Steps taken or planned to mitigate the impact(s) of the overflow(s) – include schedule of major milestones	
Additional information (attach additional pages, maps, etc. as needed)	

I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION IN THIS REPORT AND ALL ATTACHMENTS. I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Signature

4-28-11
Date

SEWER SI
Title

OhioEPA

State of Ohio Environmental Protection Agency

Ohio EPA Form 4237
Issued 08/04

Sanitary Sewer Overflow 5-Day Follow Up Report

Report Submitted by:	
Date	04/08/11
Facility Name	City of Warren, Ohio Water Pollution Control
Ohio NPDES Permit No.	3PE0008*KD
Period Covered by Report	04/04/2011
Contact Person Name	Greg Lubert
Contact PersonTitle	Sewer Systems Superintendent
Mailing Address	2323 Main Ave SW
City, State, Zip	Warren, Ohio 44481
County	Trumbull
Telephone No.	330-841-2591 Ext 111
E-mail Address	glubert@warren.org

Signature required at end of form

Overflow Information	
Event start date and time – if multiple locations, include information for each	04/04/11 1630 hrs
Event end date and time	04/04/11 2030 hrs
Location(s) the SSO – include unique ID number if one exists	3PE00008020
Destination(s) of overflow	☐ Basement or building ☐ Ground ☒ Storm sewer to receiving water ☐ Directly to receiving water
Specific receiving water(s) (if applicable)	Mahoning River
Estimated volume (million gallons) – if multiple locations, include volume for each	.363 MG
Sewer system component(s) from which release occurred	☐ Manhole ☒ Constructed overflow ☐ Pipe crack ☐ Pump station ☐ Other (explain)
Cause(s) of overflow	☒ Extreme weather ☐ Equipment failure ☐ Power failure ☐ Debris in line ☐ Roots ☐ Grease ☐ Other blockages ☐ Line deterioration ☐ Vandalism ☐ Other (explain)

Click to clear all entered information (on both pages of this form) CLEAR

Steps taken or planned to eliminate and/or reduce the overflow – include schedule of major milestones	2006 - Commercial roof drain testing in the downtown area. The flow metering of the sanitary sewer system in the downtown area and areas to north of the downtown area. 2007 - Ongoing I & I Study (North End) dye testing of downspouts on homes & businesses North Park, Belmont NW, Atlantic NW, Forest NW. Dye testing of storm sewers of the streets listed above.
Steps taken or planned to prevent reoccurrence of the overflow(s) – include schedule of major milestones	Spring of 2008 certifed letters will be sent out this spring to homeowners regarding downspout violations. 2011 - Hiring an engineering firm to review our findings
Steps taken or planned to mitigate the impact(s) of the overflow(s) – include schedule of major milestones	
Additional information (attach additional pages, maps, etc. as needed)	

I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION IN THIS REPORT AND ALL ATTACHMENTS. I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Signature

4-8-11
Date

SEWER SYSTEMS SUPT
Title

State of Ohio Environmental Protection Agency

Ohio EPA Form 4237
Issued 08/04

Sanitary Sewer Overflow 5-Day Follow Up Report

Report Submitted by:	
Date	05/04/11
Facility Name	City of Warren, Ohio Water Pollution Control
Ohio NPDES Permit No.	3PE0008*KD
Period Covered by Report	05/03/2011
Contact Person Name	Greg Lubert
Contact PersonTitle	Sewer Systems Superintendent
Mailing Address	2323 Main Ave SW
City, State, Zip	Warren, Ohio 44481
County	Trumbull
Telephone No.	330-841-2591 Ext 111
E-mail Address	glubert@warren.org

Signature required at end of form

Overflow Information	
Event start date and time – if multiple locations, include information for each	05/03/11 1000 hrs
Event end date and time	05/03/11 1500 hrs
Location(s) the SSO – include unique ID number if one exists	3PE00008020 1105-78-1516
Destination(s) of overflow	☐ Basement or building ☐ Ground ☒ Storm sewer to receiving water ☐ Directly to receiving water
Specific receiving water(s) (if applicable)	Mahoning River
Estimated volume (million gallons) – if multiple locations, include volume for each	.205 MG
Sewer system component(s) from which release occurred	☐ Manhole ☒ Constructed overflow ☐ Pipe crack ☐ Pump station ☐ Other (explain)
Cause(s) of overflow	☒ Extreme weather ☐ Equipment failure ☐ Power failure ☐ Debris in line ☐ Roots ☐ Grease ☐ Other blockages ☐ Line deterioration ☐ Vandalism ☐ Other (explain)

Click to clear all entered information (on both pages of this form) CLEAR

Steps taken or planned to eliminate and/or reduce the overflow – include schedule of major milestones	2006 - Commercial roof drain testing in the downtown area. The flow metering of the sanitary sewer system in the downtown area and areas to north of the downtown area. 2007 - Ongoing I & I Study (North End) dye testing of downspouts on homes & businesses North Park, Belmont NW, Atlantic NW, Forest NW. Dye testing of storm sewers of the streets listed above.
Steps taken or planned to prevent reoccurrence of the overflow(s) – include schedule of major milestones	Spring of 2008 certifed letters will be sent out this spring to homeowners regarding downspout violations. 2011 - Hiring an engineering firm to review our findings
Steps taken or planned to mitigate the impact(s) of the overflow(s) – include schedule of major milestones	
Additional information (attach additional pages, maps, etc. as needed)	

I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION IN THIS REPORT AND ALL ATTACHMENTS. I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Signature

5-5-11
Date

Sewer Systems Superintendent
Title

OhioEPA

State of Ohio Environmental Protection Agency

Ohio EPA Form 4237
Issued 08/04

Sanitary Sewer Overflow 5-Day Follow Up Report

Report Submitted by:	
Date	06/03/11
Facility Name	City of Warren, Warren Water Pollution Control Center
Ohio NPDES Permit No.	3PE0008*KD
Period Covered by Report	5/12/2011
Contact Person Name	Greg Lubert
Contact PersonTitle	Sewer Systems Superintendent
Mailing Address	2323 Main Ave SW
City, State, Zip	Warren, Ohio 44481
County	Trumbull
Telephone No.	330-841-2591 Ext 111
E-mail Address	glubert@warren.org

Signature required at end of form

Overflow Information	
Event start date and time – if multiple locations, include information for each	5/12/11 1730 hrs
Event end date and time	5/12/11 2200 hrs
Location(s) the SSO – include unique ID number if one exists	3PE00008020
Destination(s) of overflow	☐ Basement or building ☐ Ground ☒ Storm sewer to receiving water ☐ Directly to receiving water
Specific receiving water(s) (if applicable)	Mahoning River
Estimated volume (million gallons) – if multiple locations, include volume for each	.408 MG
Sewer system component(s) from which release occurred	☐ Manhole ☒ Constructed overflow ☐ Pipe crack ☐ Pump station ☐ Other (explain)
Cause(s) of overflow	☒ Extreme weather ☐ Equipment failure ☐ Power failure ☐ Debris in line ☐ Roots ☐ Grease ☐ Other blockages ☐ Line deterioration ☐ Vandalism ☐ Other (explain)

Click to clear all entered information (on both pages of this form) CLEAR

Steps taken or planned to eliminate and/or reduce the overflow – include schedule of major milestones	In the process of obtaining an engineering firm to address the problem.
Steps taken or planned to prevent reoccurrence of the overflow(s) – include schedule of major milestones	
Steps taken or planned to mitigate the impact(s) of the overflow(s) – include schedule of major milestones	
Additional information (attach additional pages, maps, etc. as needed)	

I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION IN THIS REPORT AND ALL ATTACHMENTS. I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Signature

6-3-11
Date

SEWER SYSTEMS SUPT
Title

OhioEPA

State of Ohio Environmental Protection Agency

Ohio EPA Form 4237
Issued 08/04

Sanitary Sewer Overflow 5-Day Follow Up Report

Report Submitted by:	
Date	06/03/11
Facility Name	City of Warren, Warren Water Pollution Control Center
Ohio NPDES Permit No.	3PE0008*KD
Period Covered by Report	5/27/2011
Contact Person Name	Greg Lubert
Contact PersonTitle	Sewer Systems Superintendent
Mailing Address	2323 Main Ave SW
City, State, Zip	Warren, Ohio 44481
County	Trumbull
Telephone No.	330-841-2591 Ext 111
E-mail Address	glubert@warren.org

Signature required at end of form

Overflow Information	
Event start date and time – if multiple locations, include information for each	5/27/11 2030 hrs
Event end date and time	5/28/11 030 hrs
Location(s) the SSO – include unique ID number if one exists	3PE00008020
Destination(s) of overflow	☐ Basement or building ☐ Ground ☒ Storm sewer to receiving water ☐ Directly to receiving water
Specific receiving water(s) (if applicable)	Mahoning River
Estimated volume (million gallons) – if multiple locations, include volume for each	1.2 MG
Sewer system component(s) from which release occurred	☐ Manhole ☒ Constructed overflow ☐ Pipe crack ☐ Pump station ☐ Other (explain)
Cause(s) of overflow	☒ Extreme weather ☐ Equipment failure ☐ Power failure ☐ Debris in line ☐ Roots ☐ Grease ☐ Other blockages ☐ Line deterioration ☐ Vandalism ☐ Other (explain)

Click to clear all entered information (on both pages of this form) CLEAR

Steps taken or planned to eliminate and/or reduce the overflow – include schedule of major milestones	In the process of obtaining and Engineering firm to remove SSO.
Steps taken or planned to prevent reoccurrence of the overflow(s) – include schedule of major milestones	
Steps taken or planned to mitigate the impact(s) of the overflow(s) – include schedule of major milestones	
Additional information (attach additional pages, maps, etc. as needed)	

I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION IN THIS REPORT AND ALL ATTACHMENTS. I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Signature

6-3-11
Date

Sewer Systems Superintendent
Title

4th

OhioEPA

State of Ohio Environmental Protection Agency

Ohio EPA Form 4237
Issued 08/04

Sanitary Sewer Overflow 5-Day Follow Up Report

Report Submitted by:	
Date	08/14/11
Facility Name	City of Warren, Warren Water Pollution Control Center
Ohio NPDES Permit No.	3PE0008*KD
Period Covered by Report	08/14/2011
Contact Person Name	Greg Lubert
Contact PersonTitle	Sewer Systems Superintendent
Mailing Address	2323 Main Ave SW
City, State, Zip	Warren, Ohio 44481
County	Trumbull
Telephone No.	330-841-2591 Ext 111
E-mail Address	glubert@warren.org

Signature required at end of form

Overflow Information	
Event start date and time – if multiple locations, include information for each	08/14/2011 1500 hr
Event end date and time	08/14/2011 1850 hr
Location(s) the SSO – include unique ID number if one exists	High St & North Park 1108-78-2674
Destination(s) of overflow	☐ Basement or building ☐ Ground ☒ Storm sewer to receiving water ☐ Directly to receiving water
Specific receiving water(s) (if applicable)	Mahoning River
Estimated volume (million gallons) – if multiple locations, include volume for each	.593 mgd
Sewer system component(s) from which release occurred	☐ Manhole ☒ Constructed overflow ☐ Pipe crack ☐ Pump station ☐ Other (explain)
Cause(s) of overflow	☒ Extreme weather ☐ Equipment failure ☐ Power failure ☐ Debris in line ☐ Roots ☐ Grease ☐ Other blockages ☐ Line deterioration ☐ Vandalism ☐ Other (explain)

Click to clear all entered information (on both pages of this form) CLEAR

Steps taken or planned to eliminate and/or reduce the overflow – include schedule of major milestones	In the process of obtaining an engineering firm to remove SSO.
Steps taken or planned to prevent reoccurrence of the overflow(s) – include schedule of major milestones	
Steps taken or planned to mitigate the impact(s) of the overflow(s) – include schedule of major milestones	
Additional information (attach additional pages, maps, etc. as needed)	

I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION IN THIS REPORT AND ALL ATTACHMENTS. I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Signature

8-15-11
Date

Sewer Systems Superintendent
Title

River Sulfide mg/L

	Mahoning River	Mahoning River	Mahoning River	Shenango River	Shenango River	Mahoning River	Mahoning River	Mahoning R	Mahoning
	New Castle, PA	New Castle, PA	Big Beaver	Shenango, PA	Shenango, PA	Leavittsburg, OH	Niles, OH	Lowellville,OH	Lowellville, OH
date	Upstream	Downstream	Mixing zone	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream
8.25.11	0.018	0.023	0.037		0.026	0.013	0.01	0.032	0.03
9.1.11	0.007	0.008	0.008		0.015	0.012	0.009	0.007	0.007
9.8.11	0.005	0.007	0.01		0.01	0.012	0.008	0.006	0.003
AVRG	0.01	0.01				0.01	0.01	0.02	0.01
MIN	0.005	0.007				0.012	0.008	0.006	0.003
MAX	0.018	0.023				0.013	0.01	0.032	0.03

River Sulfide mg/L

	Mahoning River	Mahoning River	Shenango River	Shenango River	Mahoning River	Mahoning River	Mahoning R	Mahoning
	New Castle, PA	New Castle, PA	Shenango, PA	Shenango, PA	Leavittsburg, OH	Niles, OH	Lowellville,OH	Lowellville, OH
date	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream
12.29.10	0.002	0.004						
1.7.11	0.004	0.004			0.004	0.01		
1.12.11	0.01	0.004			0.008	0.013		
1.21.11	0.005	0.005			0.006	0.01		
1.28.11	0.003	0.008			0.005	0.005		
2.1.11					0.008	0.007		
2.4.11	0.011	0.008			0.007	0.009		
2.8.11					0.005	0.006		
2.11.11	0.004	0.008			0.005	0.005		
2.14.11	0.008	0.006			0.003	0.004		
2.18.11	0.031	0.031		0.04	0.037	0.036		
2.28.11	0.017	0.011		0.017	0.009	0.01		
3.2.11	0.039	0.037		0.005	0.001	0.016		
3.4.11	0.03	0.032		0.069	0.025	0.025		
3.7.11	0.064	0.065		0.048	0.053	0.056		
3.10.11	0.04	0.047		0.055	0.042	0.039		
3.14.11	0.026	0.028		0.033	0.037	0.036		
4.29.11	0.016	0.016		0.008	0.017	0.02		
5.6.11	0.008	0.005		0	0.006	0.007		
5.11.11	0.008	0.006		0.009	0.008	0.003		
5.19.11	0.031	0.03		0.067	0.038	0.03		
5.23.11							0.014	0.016
5.26.11					0.072	0.07	0.044	0.043
6.2.11					0.017	0.015	0.011	0.012
6.6.11	0.009	0.008*						
6.9.11	0.008	0.009*			0.016	0.011	0.009	0.01
6.13.11	0.012	0.014			0.053	0.012	0.012	0.009
6.13.11		0.013*						
6.30.11	0.008	0.008		0.001	0.012	0.008	0.007	0.007
6.30.11		.008*						
7.7.11	0.01	0.014		0.001	0.013	0.009	0.01	0.003
7.7.11		.013*						
7.13.11	0.013	0.013		0.01	0.014	0.011	0.011	0.009
7.13.11		.012*						
7.21.11	0.008	0.009		0.005	0.014	0.009	0.011	0.009
7.21.11		0.008*						
8.4.11	0.009	0.008		0.007	0.012	0.006	0.004	0.004
8.4.11		.006*						
8.10.11	0.017	0.014		0.009	0.017	0.01	0.011	0.011
8.10.11		.013*						
8.18.11	0.007	0.006		0.012	0.016	0.009	0.009	0.006
8.18.11		.008*						
AVRG	0.02	0.02			0.02	0.02	0.01	0.01
MIN	0.002	0.004			0.001	0.003	0.004	0.003
MAX	0.064	0.065			0.072	0.07	0.044	0.043

*** denotes the sample was grabbed further downstream in Big Beaver & Mahoning mixing zone**

River TDS, mg/L

	Mahoning River	Mahoning River	Mahoning River	Shenango River	Shenango River	Mahoning River	Mahoning River	Mahoning R	Mahoning
	New Castle, PA	New Castle, PA	Big Beaver	Shenango, PA	Shenango, PA	Leavittsburg, OH	Niles, OH	Lowellville,OH	Lowellville, OH
date	Upstream	Downstream	Mixing zone	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream
7.21.11	292	308	292		180	224	220	276	264
7.28.11	300	348	284		200	208	280	280	300
8.4.11	248	284	236		152	160	200	244	252
8.10.11	268	284	272		200	224	264	284	308
8.18.11	300	380	300		232	232	292	336	332
8.25.11	336	340	304		236	232	296	296	272
9.1.11	352	456	324		176	244	300	344	364
9.8.11	360	416	352		252	256	348	364	364
AVRG	307.00	352.00		#DIV/0!	203.50	222.50	275.00	303.00	307.00
MIN	248	284		0	152	160	200	244	252
MAX	360	456		0	252	256	348	364	364

River TDS, mg/L

	Mahoning River	Mahoning River	Shenango River	Shenango River	Mahoning River	Mahoning River	Mahoning R	Mahoning
	New Castle, PA	New Castle, PA	Shenango, PA	Shenango, PA	Leavittsburg, OH	Niles, OH	Lowellville,OH	Lowellville, OH
date	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream
10.1.10	340	484	224	212				
10.8.10	388	424						
10.15.10	380	500						
10.29.10	372	436						
11.4.10	384	508						
11.10.10	396	580						
11.19.10	348	400						
11.29.10	348	432						
12.3.10	240	268						
12.10.10	368	380						
12.17.10	308	316			256	256		
12.22.10	364	372			284	336		
12.29.10	384	388			308	336		
1.4.11					224	224		
1.7.11	284	292			272	268		
1.12.11	332	352			248	304		
1.21.11	472	480			292	348		
1.28.11	452	496			312	384		
2.1.11					308	412		
2.4.11	772	784			412	528		
2.8.11					384	868		
2.11.11	560	572			404	452		
2.14.11	568	576			388	520		
2.18.11	408	420		208	240	284		
2.28.11	384	400		200	228	244		
3.2.11	164	184		168	128	168		
3.4.11	292	412		308	316	292		
3.7.11	212	212		116	136	136		
3.10.11	388	264		136	180	208		
3.14.11	260	264		120	224	228		
4.29.11	248	280		140	212	220		
5.6.11	216	216		100	168	184		
5.11.11	272	276		128	212	224		
5.19.11	232	224		120	208	200		
5.23.11							248	244
5.26.11					168	200	216	216
6.2.11					128	148	168	164
6.6.11	300	228*						
6.9.11	296	248*			212	248	304	304
6.13.11	324	324			184	240	308	308
6.13.11		260*						
6.30.11	356	404		208	212	272	360	368
6.30.11		200*						
7.7.11	340	316		204	240	268	328	336
7.7.11		368*						
7.13.11	320	352		164	212	244	288	300
7.13.11			188*					
AVRG	353.30	388.23	224.00	168.80	248.39	298.19	277.50	280.00
MIN	164	184	224	100	128	136	168	164
MAX	772	784	224	308	412	868	360	368

*** denotes the sample was grabbed further downstream in Big Beaver & Mahoning mixing zone**

River Chloride mg/L

	Mahoning River	Mahoning River	Mahoning River	Shenango River	Shenango River	Mahoning River	Mahoning River	Mahoning R	Mahoning
	New Castle, PA	New Castle, PA	Big Beaver	Shenango, PA	Shenango, PA	Leavittsburg, OH	Niles, OH	Lowellville,OH	Lowellville, OH
date	Upstream	Downstream	Mixing zone	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream
8.25.11	80	80	80		60	60	80	80	80
9.1.11	80	120	80		60	60	80	80	80
9.8.11	100	80	100		60	100	100	100	100
AVRG	86.67	93.33		#DIV/0!	60.00	73.33	86.67	86.67	86.67
MIN	80	80		0	60	60	80	80	80
MAX	100	120		0	60	100	100	100	100

River Chloride mg/L

	Mahoning River	Mahoning River	Shenango River	Shenango River	Mahoning River	Mahoning River	Mahoning R	Mahoning
	New Castle, PA	New Castle, PA	Shenango, PA	Shenango, PA	Leavittsburg, OH	Niles, OH	Lowellville,OH	Lowellville, OH
date	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream
9.20.10	120	140						
12.7.10					80	80		
12.29.10	100	100						
1.7.11	80	80			60	60		
1.12.11	160	160			96	128		
1.21.11	140	160			80	100		
1.28.11	120	140			80	120		
2.1.11					100	140		
2.4.11	320	340			120	180		
2.8.11					120	140		
2.11.11	160	160			80	100		
2.14.11	180	200			120	180		
2.18.11	200	200		120	120	140		
2.28.11	160	140		60	80	80		
3.2.11	60	60		60	40	40		
3.4.11	80	80		40	100	80		
3.7.11	60	80		60	40	40		
3.10.11	80	80		40	60	60		
3.14.11	80	80		40	60	60		
4.29.11	80	80		60	80	80		
5.6.11	60	60		40	60	60		
5.11.11	60	80		40	60	60		
5.19.11	60	60		40	60	60		
5.23.11							60	60
5.26.11					40	40	60	60
6.2.11					60	60	60	60
6.6.11	80	60*						
6.9.11	100	80*			60	80	80	80
6.13.11	80	100			40	60	80	80
6.13.11		80						
6.30.11	100	100		60	60	80	100	100
6.30.11		80*						
7.7.11	80	80		60	60	60	80	80
7.7.11		100*						
7.13.11	60	80		60	40	60	80	80
7.13.11		80*						
7.21.11	80	80		60	60	60	60	60
7.21.11		80*						
8.4.11	80	100		60	60	60	80	80
8.4.11		80*						
8.10.11	60	80		80	80	60	80	80
8.10.11		60*						
8.18.11	80	100		60	60	60	80	80
		80*						
AVRG	105.33	113.10	#DIV/0!	57.78	72.38	83.38	75.00	75.00
MIN	60	60	0	40	40	40	60	60
MAX	320	340	0	120	120	180	100	100

*** denotes the sample was grabbed further downstream in Big Beaver & Mahoning mixing zone**

current

City of
Warren, Ohio
Water Pollution Control
Sewer Use Ordinance
Last revision 7/31/06

CHAPTER 922
Private Sewage Waste

922.01 PURPOSE.
It is the purpose of this chapter to establish regulations for the disposal, by private haulers of delivery to the Warren Water Pollution Control Center treatment facility, of wastes from septic tanks and from privately owned and operated package sewage treatment plants, and to fix charges for the acceptance and treatment thereof.

922.02 CITY HEALTH DEPARTMENT AND COUNTY PERMIT REQUIRED.
As a prerequisite for obtaining permission to dispose, by private hauler to the Warren Water Pollution Control Center treatment facility, of wastes from septic tanks or from privately owned and operated package sewage treatment plants, each hauler of such wastes shall obtain a permit to haul sewage tank cleaning waste from the City Health Department. A copy of this permit shall be on file at Warren Water Pollution Control Center treatment facility before permission is granted to discharge waste. Haulers of septic tank waste from other counties shall present a permit to haul septic tank wastes from their respective county's Board of Health, when applying to the City Health Department for its permit to operate and discharge. This permit shall be renewed annually.

922.03 HEALTH DEPARTMENT PERMIT REQUIRED.
All haulers of wastes from septic tanks or privately owned and operated package sewage treatment plants, in order to dispose of such wastes at the Warren Water Pollution Control Center treatment facility shall first obtain a permit from the Health Department for each vehicle used for this purpose, by making application on forms provided therefore by the Health Department and by providing the permit called for in Section 922.02.

922.04 REFUSAL OF SERVICES.
Warren Water Pollution Control Center treatment facilities may refuse the services of its facilities to haulers of septic tank waste or wastes from privately owned and operated package sewage treatment plants delivered by private hauler's to Warren's treatment facilities for specific loads if the hauler has failed to tender payment for disposal charges within sixty days of the date of billing the department or if the waste material to be delivered to the treatment facility is determined to:
(a) Be deleterious to the treatment facility or appurtenances thereto;
(b) Cause unusual expense in the handling and treatment;
(c) Inhibit the performance of the treatment process;
(d) Cause the plant to fail to meet effluent limits set by State and Federal regulatory agencies; or
(e) Contain industrial or scavenger waste.

922.05 REVOCATION OF PERMIT.

The Director of the Warren Water Pollution Control Center may revoke the wastewater disposal permit acquired by haulers of septic tank or waste from privately owned and operated package sewage treatment plants if the hauler:

(a) Misrepresents the nature and source of the wastewater; or

(b) Refuses to allow safety, traffic and disposal directions of the plant operators at the treatment plants; or

(c) Fails to tender payment for disposal charges within sixty days of the date of billing by the City.

922.06 DISPOSAL POINT.

The only permitted location for disposal of septic tank wastes or other approved wastes is at the water pollution control treatment facilities, 2323 Main Avenue, S.W., Warren, Ohio at a point designated by the Director of the Water Pollution Control Department. Hours of operation shall be established by operational considerations of the facility and haulers shall be so notified. No waste shall be discharged into any sewer, manhole, catch basin or any appurtenance thereto or into any natural watercourse.

922.07 REPORTING INFORMATION.

All haulers of septic tank waste or waste from privately owned and operated package plants are required to report to the Warren Water Pollution Control Treatment facility information pertaining to the source of such waste. This information shall be submitted by the haulers on such forms as may be issued by the Director of the Warren Water Pollution Control Center.

922.08 TREATMENT CHARGES FOR SEPTIC TANK WASTE.

Treatment charges for septic tank waste or waste from privately owned and operated package sewage treatment plants shall be the following:

A minimum of seventy dollars ($70.00) for each load delivered to the treatment plant for treatment or a charge of seven cents (7¢) per gallon for each load with a volume greater than 1,000 gallons. The tank size of the truck shall determine the gallonage charge over 1,000 gallons regardless of the volume in the tank at the time of discharge. These charges shall be reviewed annually and adjusted as necessary.

922.09 TREATMENT CHARGES FOR UNDERGROUND STORAGE TANK WATER REMOVAL.

A minimum of one hundred fifty dollars ($150.00) for each load delivered to the treatment plant for treatment or a charge of fifteen cents ($0.15) per gallon for each load with a volume greater than 1,000 gallons. The tank size of the truck shall determine gallonage charge over 1,000 gallons regardless of volume in the tank at the time of discharge. All water shall be lab certified to be non-detectable of any hazardous or toxic pollutants. These charges shall be reviewed annually and adjusted as necessary.

922.10 NON-HAZARDOUS LEACHATE WATER.

Non-hazardous leachate water may be deposited or discharged into the City's sewerage system. Such may be done directly or by the delivering of same to the Warren Water Pollution Control Center.

The treatment charge for non-hazardous leachate water, whether discharged directly or hauled to the Warren Water Pollution Control Center, is three cents ($0.03) per gallon.

A depositor or discharger of non-hazardous leachate water is subject to all applicable sewage and sewer ordinances, statutes, rules and regulations, including, but not limited to, those relative to industrial discharge and industrial pretreatment.

922.11 DELINQUENT ACCOUNTS.

Any charge resulting from this chapter that remains unpaid thirty days after the billing date thereof shall be considered delinquent and shall, thus, be subject to a penalty of one and one-half percent (1 1/2%) on the outstanding balance per billing cycle.

CHAPTER 923
Sewer Regulations

923.005 DEFINITIONS.

As used in this chapter, the following words shall have the meanings ascribed to them in this section.

(a) "Combined sewer" means a sewer intended to serve as a sanitary and storm sewer.

(b) "Control manhole" means a manhole or other means of access provided by an industrial user for the purpose of permitting inspection, monitoring and metering of flows generated on the user's premises.

(c) "NPDES Permit" means any permit or equivalent document or requirement issued by the Ohio EPA to regulate the discharge of pollutants pursuant to the "National Pollutant Discharge Elimination System" (NPDES) as established by the U.S. EPA.

(d) "Ohio EPA" means the Ohio Environmental Protection Agency, a State regulatory agency.

(e) "Sanitary sewer" means a sewer intended to carry only sewage exclusive of storm water.

(f) "Sewer" means a pipe or conduit for carrying sewage.

(g) "Storm sewer" means a sewer intended to carry only storm water, surface run-off, street wash waters and drainage.

(h) "U.S. EPA" means the United States Environmental Protection Agency, a Federal regulatory agency.

923.01 SANITARY SEWER MAIN FEES; ASSESSMENT.

Before a connection permit to the sanitary sewer main is issued to a licensed sewer builder or plumber for the owner of property for which a sanitary sewer connection is desired, the City Engineer shall determine a sanitary sewer main fee, in accordance with the following:

(a) If the property for which a sanitary connection is desired, has been previously assessed for a sanitary sewer main by a political subdivision or the sewer main has been installed by a developer at his expense, there shall be no charge for the sanitary sewer main fee. However, the service charge and inspection fee shall be in effect as described in Section 923.015.

(b) If the owner of property for which a sanitary sewer connection is desired has not previously contributed toward an existing sewer main, then the fee shall be twenty-four dollars ($24.00) per foot front for the sanitary sewer main fee. This fee contributes to the cost of constructing the sanitary sewer main. Also to be included are the service charge and inspection fees, as described in Section 923.015.

(c) If a sanitary sewer main is extended by an individual, at his expense under a special construction permit issued by the City Engineer, there shall be no fee for the special permit; however, the owner shall pay inspection charges for the construction of the sanitary sewer main extension and the standard service charges and inspection fees for each connection thereto, as described in Section 923.015.

(d) All sanitary sewer main fees, as described herein, are collected to defray the cost of construction of such sanitary sewer main where there was no contribution by the abutting affected property's at the time of construction. These main fees are to be deposited to

the Sewerage Revenue Fund. All inspection fees are to be deposited to the General Fund.

923.015 SERVICE CHARGE AND PERMIT FOR SEWER CONNECTIONS OR DEPOSITS; FEE.

No person shall connect any pipe with any manhole, lamphole, catch basin, inlet or any public sanitary or storm sewer of the City or deposit anything in any manhole, lamphole, catch basin or street inlet without first obtaining a permit to do so from the City's Director of Engineering, Planning and Building. Permits for any connection shall be issued only to sewer builders or plumbers licensed by the City. Before a new sanitary sewer connection permit is issued, proof in the form of a deposit receipt for sanitary sewer service as issued by the Warren City Water Department must accompany the application.

In addition to the sanitary sewer main fee as described in Section 923.01 there shall be service charges and inspection fees issued and collected by the City Engineering Department office and the fees for the same shall be as follows:

(a) The Ohio Environmental Protection Agency has estimated that the average amount of water used by a standard single-family residential dwelling amounts to 400 gallons per day. Therefore, service charges shall be determined by using a standard single-family residential dwelling as the basic unit. The service charge for a basic unit shall be three hundred dollars ($300.00) per each 400 gallons of water or part thereof used per day. However regardless of water usage or type of structure, the minimum tap-in and service charge shall be in the amount of three hundred dollars ($300.00). In estimating water used by installations other than single-family residential dwellings, the following Sewage Flow Guide, as established by the Ohio Environmental Protection Agency, shall be used along with the owner's or applicant's detailed specifications and projected activities for such installation.

SEWAGE FLOW GUIDE

Installation	Sewage Flow (gallons per day)
Apartments	250 one-bedroom
	300 two-bedroom
	350 three-bedroom
Assembly halls	2 per seat
Bowling alleys (no food service)	75 per lane
Churches (small)	3 - 5 per sanctuary seat
Churches (large with kitchen)	5 - 7 per sanctuary seat
Country clubs	50 per member
Dance halls	2 per person
Drive-in theaters	5 per car space
Factories (no showers)	25 per employee
Factories (with showers)	35 per employee
Food service operations	
Ordinary restaurant (not 24-hour)	35 per seat
24-hour restaurant	50 per seat
Banquet rooms	5 per seat
Restaurant along freeway	100 per seat
Tavern (very little food service)	35 per seat
Curb service (drive-in)	50 per car space
Vending machine restaurants	100 per seat at
Homes in subdivisions	400 per dwelling
Hospitals (no resident personnel)	300 per bed
Institutions (residents)	100 per person
Laundries (coin-operated)	400 per standard size machine
Mobile home parks	300 per mobile home space
Motels	100 per unit
Nursing and rest homes	150 per patient
	100 per resident employee
	50 per nonresident employee
Office buildings	20 per employee
Recreational vehicle parks and camps	125 per trailer or tent space
Retail store	20 per employee
Schools – elementary	15 per pupil
High and junior high	20 per pupil
Service stations	1000 first bay or pump island
Shopping centers (no food service or laundries)	0.2 per square foot of floor space
Swimming pool (average)	3 - 5 per swimmer (design load)
with hot water shower	5 - 7 per swimmer (design load)
Vacation cottages	50 per person
Youth and recreation camps	50 per person

Calculation shall then be made on the basis of submitted data to be determined by multiplying the estimated amount of gallons of water used per day by three hundred

dollars ($300.00) per 400 gallons of water or part thereof, used per day. These fees shall be paid to the Sewer Revenue Fund.

(b) In the event the installation is not covered under the Sewage Flow Guide or is not applicable, as determined by the City Engineer, then the service charge shall be determined by multiplying the total number of square feet within the installation, including basement floor areas and excluding the garage floor areas by 0.2 per square foot. This product shall then be multiplied by three hundred dollars ($300.00) per 400 gallons of water or part thereof, used per day. These fees shall be paid to the Sewer Revenue Fund.

(c) In the event the installation that is proposed is to be rebuilt or built on land where an existing building has been razed or moved, there shall be no service charge as long as the installation proposed is comparable to the razed or moved building; that is single-family, commercial or industrial user. However, the permit fee shall remain in effect in accordance with subsection (e) hereof.

(d) In the event the installation proposed is of an industrial type (industrial type being defined as any activity where materials are received at the installation altered by one or more internal operations and then dispatched in the altered form to the City's sanitary sewer system), no permit shall be issued until the City's pretreatment program is satisfied in accordance with Chapter 924 and written approval from the Water Pollution Control Superintendent for the same is received by the City Engineer.

(e) In addition to the service charge fee as covered under subsections (a) to (d) hereof, there shall be three classes of inspection permits and fees, as follows:
(1) For residential service, a twenty-five dollar ($25.00) fee.
(2) For commercial service, a fifty-dollar ($50.00) fee.
(3) For industrial service, a seventy-five dollar ($75.00) fee.

These permit fees shall be collected by the City Engineer, to defray the cost of administration and inspection for the same and deposited to the General Fund.

(f) There shall be no service charge required of any applicant for a storm sewer tap-in, however, inspection permit fees as established under subsection (e) hereof, shall remain in effect.

(g) Where a property is affected by an assessment for a proposed or existing sanitary sewer as defined in Section 903.01, the above service charge and inspection permit fees shall remain in effect for same.

(h) A sanitary sewer connection subsidy program is available for low to moderate income persons who apply for and meet the qualifications as determined by the City Auditor's Office which will be in compliance with CFR Section 8 income standards as amended. The City Auditor is hereby authorized to administer this program through the Sewerage Revenue Fund, as established.

(i) Requests for sewer connections not covered by the provisions herein shall be decided by the Sewer Review Board, which is composed of the Director of Public Service and Safety, the City Engineer and the Director of the Water Pollution Control Department.
(j)All service charges collected by the City Engineer under this section shall be deposited to the Sewerage Revenue Fund.

923.02 CONNECTIONS TO BE INSPECTED AND APPROVED PRIOR TO COVERING.

Any licensed sewer building or plumber making any connection with a public sewer, and before covering the same, shall have the connection inspected and approved by the City Engineer. No lateral shall be left open or exposed.

The City Engineer shall be notified by the plumber or sewer builder when the work is ready for inspection. All work shall be left uncovered and convenient for examination when practicable until inspected and approved. All sewer connections shall be inspected from the point of commencement to a point within three feet of the outside wall of the building. No notice shall be sent for any inspection until the work is entirely ready for the same.

923.03 DEPOSITING REFUSE IN SEWERS.

No garbage, offal, dead animals, wood, stone, straw, rags, grease, grit, leaves, sticks, grass clippings or other substance of a tougher or harder texture than toilet tissue shall be deposited in any manhole or any sanitary sewer, nor shall they be deposited in any manhole, inlet or catch basin of any storm sewer.

Grease/grit interceptors shall be installed on all existing and future building sanitary sewer laterals where such buildings are proven contributors of deleterious and detrimental materials, as defined under Section 4101:2-51-24 interceptors of the Ohio Plumbing Code within the Ohio Administrative Code, to the City's sanitary sewer system.

Where such contributions are found to exist, the City Engineer shall notify the property owner by certified mail to install a grease/grit interceptor, as described above, within ninety days of receipt of notification.

Failure to construct a grease/grit interceptor within the specified time frame shall result in a penalty of one hundred dollars ($100.00).

A separate offense shall be deemed to have been committed for each period of twenty-four hours that such violation continues after a period of thirty days following the original conviction.

923.04 INJURING OR REMOVING MANHOLES OR CATCH BASINS.

No person shall break, damage in any way or remove any portion of any manhole, catchbasin or any part of any sewer or appurtenance thereto without a permit to do so as approved and issued by the City Engineer.

923.05 SEPTIC TANK REQUIREMENTS.

No person, owner, agent, lessee, tenant or occupant of any lot, land or parcel of land or building thereon located within the City shall establish or construct a privy, septic tank, cesspool or other receptacle for sewage or excreta or a connection to a private sewer, ditch or other outlet without first obtaining a permit to do so, as issued by the City Health Department.

923.06 MANDATORY CONNECTION TO SANITARY SEWER.

When a public sewer, water main or other water supply is available or is hereafter made available, a connection to such public sewer shall be established and constructed. The cost of such construction including any permit fees as set forth in Sections 923.01 and 923.015, and any other ordinances now in effect or which may take effect in the future, shall be paid by such person, owner, agent, lessee, tenant or occupant.

Failure to make the connection within ninety days' notification by the City Engineer shall result in a penalty of one hundred dollars ($100.00).

A separate offense shall be deemed to have been committed for each period of twenty-four hours that such violation continues after a period of thirty days following the original conviction.

923.07 CLEAN WATER DRAIN CONNECTIONS PROHIBITED.

(a) The practice of connecting downspouts or garage or driveway drains, and specifically sunken driveway drains or other surface drains to the sanitary sewer system is prohibited. Broken or leaking service connections on laterals are likewise prohibited. Where such connections now exist, the practice shall be stopped. The City Engineer is authorized and directed to investigate all conditions where such connections exist or are reported to exist.

Where such connections are found to exist, the City Engineer shall order them removed or eliminated or repaired on or before ninety days after the date of such order. The abandoned section of the connection shall be permanently sealed to the satisfaction of the City Engineer.

(b) The order shall be made against and served personally or by certified mail upon the owner, operator, manager, lessee, agent or occupant of the building or premises which such connection serves. If no such person can be found upon whom the order can be served, it shall be sufficient notice to post copies of the order at two conspicuous places upon the building or premises.

(c) If such connections are not removed or eliminated within the ninety-day period prescribed in such order, the City Engineer is authorized to charge double the rate shown in Section 925.03(b) until such connection has been removed or eliminated. If the illegal connection is not removed within ninety days after notification, then the City Engineer is authorized to charge triple the rate shown in Section 925.03(b). If the illegal connection is still not removed within ninety days after the triple notification, the City Engineer is hereby authorized to disconnect the illegal connection from the City's sanitary sewer system, in accordance with Section 923.12, or have the same corrected and charged to the Sewerage Mortgage Capital Improvement Fund. The property owner shall then be billed

for all assessed costs incurred for the same, with the funds collected being reimbursed to the Sewerage Mortgage Capital Improvement Fund.

Should the City Engineer cause to disconnect the sewer lateral from the City's sanitary sewer system, such disconnection shall be performed within the street right of way or public easement. It shall then be the responsibility of the property owner to reconnect to the City's sanitary sewer system and pay the appropriate fees, in accordance with Section 923.015 upon the correction of the cited violation.

(d) In the event a building is to be demolished or physically removed from its original site, the sanitary sewer building lateral shall be permanently sealed with concrete to the satisfaction and inspection of the City Engineer, prior to demolition or removal. All persons desiring to demolish or remove a building shall first obtain a permit to seal the lateral, as described herein, from the City Engineer. There shall be no charge for the permit, however, there shall be a twenty-five dollar ($25.00) inspection fee and the permit holder shall accompany the City Inspector at the time of inspection.

(e) No person shall discharge into the building sewer the surface water that collects in the basement or foundation excavations. If the building sewer is connected before the plumbing is to be connected, the sewer builder shall provide and seal a plug in the end of the building sewer, or if the sewer has been extended into the basement and decreased in size a plug of proper size shall be sealed in the end until such time as the plumber is ready to connect the plumbing to the building sewer. Any surface water accumulation shall be pumped on the ground outside the building foundation.

(f) From and after the effective date of this section, no person, firm or corporation shall, in constructing a new building or correcting a problem, cause or permit footer drains or foundation drains to be connected directly or indirectly into a sanitary sewer.

(g) The practice of repairing existing footer drains without removing their outflow discharge from the sanitary sewer building lateral is prohibited. When such repairs are made, the existing footer connection shall be removed from the lateral and properly discharged to a clean storm water outlet, that is storm sewer, inlet, catch basin, road ditch or downspout opening at the curb. The practice of connecting sump pumps, or other mechanical means, to the downspout opening at the curb is prohibited. Any such existing connection creating a public nuisance shall be ordered removed and permanently eliminated at no cost to the City. If such outfall cannot be accomplished by gravity flow, then a form of sump pump shall be installed to discharge clean water as stated herein.

All corrective work to the sanitary sewer service lateral as described herein shall include an exterior clean out within five feet of the foundation. The clean out shall be constructed to the satisfaction of the Director of Engineering, Planning and Building or his designated appointee. The clean out shall be constructed of the same materials as the sanitary sewer service lateral and shall have a removable watertight plug to prevent the infiltration of clean water. The clean out shall be of such design to allow sewer cleaning equipment access to the sanitary sewer service lateral, outside of the structure serviced by same.

(h) The practice of installing basement waterproofing systems that connect to the existing footer system, that in turn connects to the sanitary sewer building lateral is prohibited. When such systems are installed, they shall discharge to a clean water outlet, as described in subsection (g) hereof.

All corrective work to the sanitary sewer lateral as described herein shall include an exterior clean out within five feet of the foundation. The clean out shall be constructed to the satisfaction of the Director of Engineering, Planning and Building, or his designated appointee. The clean out shall be constructed of the same materials as the sanitary sewer service lateral and shall have a removable watertight plug to prevent the infiltration of clean water. The clean out shall be of such design to allow sewer cleaning equipment access to the sanitary sewer service lateral, outside of the structure serviced by same.

(i) No person, in regard to subsections (g) and (h) hereof shall perform any work or connection on a building's footer drain or sanitary sewer building lateral without first obtaining a permit to do so by the City Engineer. Permits shall be issued only to licensed sewer builders, licensed plumbers or the property owner, if they are to perform the work themselves. There shall be no charge for the permit or inspection thereof.

(j)Whoever violates subsection (g), (h) or (i) hereof shall be subject to the charges as described in subsections (a), (b) and (c) hereof.

923.08 SANITARY SEWER SERVICE OUTSIDE CITY.

(a) Unincorporated property adjacent to the corporate limits of the City.

The sanitary sewerage system of the City shall not be extended to any unincorporated lot, parcel or piece of real property adjacent to the corporate limits of the City and not already serviced by that system unless and until each and every fee owner of such lot, parcel or piece of real property agrees, in writing with the City, that such lot, parcel or piece of real property shall be completely annexed to the City within one year from the date such agreement is made and entered into. Should the lot, parcel or piece of real property not be completely annexed to the City for any reason whatsoever, within one year from the date the agreement is made and entered into, the City, by and through its Director of Public Service and Safety and without any further liability or expense on its part, may terminate such agreement and any and all sewer service incidental thereto. Should such lot, parcel or piece of real property be completely annexed to the City within such one-year period, and should there otherwise be compliance with laws, rules and regulations, such sewer service (only temporary until then) shall be considered for permanent status.

In light of the foregoing, the sanitary sewerage system of the City shall not be extended to any unincorporated lot, parcel or piece of real property adjacent to the corporate limits of the City and not already serviced by that system unless and until a complete and applicable agreement in the form provided in Ordinance 10628/94 is fully executed by each and every fee owner of the real property in question, and the appropriate officials of the City.

Notwithstanding any foregoing provisions within this subsection (a) to the contrary, any and all provisions within this subsection (a) relative to the preconditioning of the extension of sewer service upon agreement to annex shall not apply, and do not apply to, any unincorporated lot, parcel or piece of real property adjacent to the corporate limits of

the City of Warren owned by a political subdivision of the State of Ohio, including a board of education.

Should, however, sewer service be extended in accordance with, or pursuant to, the preceding paragraph, and the unincorporated lot, parcel or piece of real property involved should thereafter cease to be owned by a political subdivision, then, and in that event, the unincorporated lot, parcel or piece of real property in question shall be completely annexed to the City within one (1) year from the date a political subdivision ceases to own same. Should such lot, parcel or piece of real property not be completely annexed to the City, for any reason whatsoever, within one (1) year from the date a political subdivision ceases to own same, the City, by and through its Director of Public Service and Safety and without any further liability or expense on its part, may terminate the sewer service so extended.

(b) Unincorporated property not adjacent to the corporate limits of the City.

The sanitary sewerage system of the City shall not be extended to any unincorporated lot, parcel or piece of real property not adjacent to the corporate limits of the City and not already serviced by that system unless and until each and every fee owner of said lot, parcel or piece of property agrees, in writing with the City, that such lot, parcel or piece of real property shall be completely annexed to the City within one (1) year from the date the lot, parcel or piece of real property first becomes adjacent to the corporate limits of the City. Should said lot, parcel or piece of real property not be completely annexed to the City, for any reason whatsoever, within one (1) year from the date it first becomes adjacent to the corporate limits of the City, the City, by and through its Director of Public Service and Safety, and without any further liability or expense on its part, may terminate said agreement and any and all sewer service incidental thereto.

In light of the foregoing, the sanitary sewerage system of the City shall not be extended to any unincorporated lot, parcel or piece of real property not adjacent to the corporate limits of the City and not already serviced by that system unless and until a complete and applicable agreement in the form provided by Ordinance 10628/94 is fully executed by each and every fee owner of the real property in question, and the appropriate officials of the City.

(c) Before any connection permitted by subsections (a) or (b) hereof can occur, a permit therefor shall be obtained from the City's Director of Public Service and Safety through the Director of Engineering, Planning and Building. Such permit shall only be issued to a sewer builder or plumber licensed by the City. Before a new sanitary sewer connection permit is issued, proof in the form of a deposit receipt for sanitary sewer service as issued by the Warren City Water Department must accompany the application.

Before such permit is issued for connection to a sanitary sewer main, however, the City's Director of Engineering, Planning and Building shall determine a sanitary sewer main fee in accordance with the following:

(1) If the property for which a sanitary connection is desired has been previously assessed for a sanitary sewer main by a political subdivision, or the sewer main has been installed by a developer at his expense, there shall be no charge for the sanitary sewer main fee. However, the service charge and inspection fee shall be in effect as described in Section 923.015.

(2) If the owner of property for which a sanitary sewer connection is desired has not previously contributed toward an existing sewer main, then the fee shall be thirty-six dollars ($36.00) per foot front for the sanitary sewer main fee. This fee contributes to the cost of constructing the sanitary sewer main. Also to be included are the service charge and inspection fees as described in Section 923.015.

(3) If a sanitary sewer main is extended by an individual at his expense under a special construction permit issued by the City's Director of Engineering, Planning and Building, there shall be no fee for the special permit; however, the owner shall pay inspection charges for the construction of the sanitary sewer main extension and the standard service charges and inspection fees for each connection thereto as described in Section 923.015.

(4) All sanitary sewer main fees are collected to defray the cost of constructing such sanitary sewer main where there was no contribution by the abutting affected property at the time of construction. These main fees are to be deposited to the Sewerage Revenue Fund. All inspection fees are to be deposited to the General Fund.

(d) The Director of Public Service and Safety is authorized to execute, for and on behalf of the City, any agreement set forth previously in subsections (a) and (b) hereof.

In addition to constituting contractual terms and provisions, the terms and provisions set forth in the agreements set forth previously in subsections (a) and (b) hereof constitute and reflect policy, procedure, law and ordinances of the City relative to the extension of the sanitary sewerage system of the City to unincorporated property outside the corporate limits of the City not already serviced by that system.

(e) Any connection or extension pursuant to this section shall also be made in accordance with applicable rules, regulations and ordinances of the City.

(f) Should any term(s) or provision(s) of this section be in conflict with any other term(s) or provision(s) existing elsewhere in these Codified Ordinances, such term(s) or provision(s) of this section shall, and do, prevail.

923.09 SERVICE CHARGE AND PERMIT FOR SEWER CONNECTIONS OR DEPOSITS; FEE FOR NONRESIDENT.

Service charges and inspection fees shall be issued and collected at the City Engineering Department office and the fees for the same for nonresidents shall be established in accordance with the following:

(a) The Ohio Environmental Protection Agency has estimated that the average amount of water used by a standard single-family residential dwelling amounts to 400 gallons per day. Therefore, service charges shall be determined by using a standard single-family residential dwelling as the basic unit. The service charge for a basic unit shall be six hundred dollars ($600.00) per each 400 gallons of water or part thereof used per day. However, regardless of water usage or type of structure, the minimum tap-in and service charge shall be in the amount of six hundred dollars ($600.00). In estimating water used by installations other than a single-family residential dwelling, the sewage flow guide

located in Section 923.015(a) shall be used along with the owner's or applicant's detailed specifications and projected activities for the installation.

Calculation shall then be made on the basis of submitted data to be determined by multiplying the estimated amount of gallons of water used per day by six hundred dollars ($600.00) per 400 gallons of water, or part thereof, used per day.

(b) In the event the installation is not covered under the sewage flow guide or is not applicable, as determined by the City Engineer, then the service charge shall be determined by multiplying the total number of square feet within the installation including basement floor areas and excluding garage floor areas, by 0.2 gallons per square foot. This product shall then be multiplied by six hundred dollars ($600.00) per 400 gallons of water, or part thereof, used per day.

(c) In the event the installation that is proposed is to be rebuilt or built on land where an existing building has been razed or moved, there shall be no service charge as long as the installation proposed is comparable to the razed or moved building; that is single-family, commercial or industrial user. However, the permit fee shall remain in effect, in accordance with subsection (e) hereof.

(d) In the event the installation proposed is of an industrial type (industrial type being defined as any activity where materials are received at the installation, altered by one or more internal operations and then dispatched in the altered form to the City's sanitary sewer system), no permit shall be issued until the City's pretreatment program is satisfied in accordance with Chapter 924 and written approval from the Water Pollution Control Superintendent for the same is received by the City Engineer.

(e) In addition to the service charge fee as covered under subsections (a) to (d) hereof, there shall be three classes of inspection permits and fees, as follows:
(1) For residential service, a fifty dollar ($50.00) fee.
(2) For commercial service, a one hundred dollar ($100.00) fee.
(3) For industrial service, a one hundred fifty dollar ($150.00) fee.
These permit fees shall be collected by the City Engineer to defray the cost of administration and inspection for the same, and deposited to the General Fund.

(f) There shall be no service charge required of any applicant for a storm sewer tap-in, however, permit fees as established under subsection (e) hereof shall remain in effect.

(g) Where a property is affected by an assessment for a proposed or existing sanitary sewer, as defined in Section 923.08, the above service charges and permit fees shall remain in effect for the same.

(h) Requests for sewer connections not covered by the provisions herein shall be decided by the Sewer Review Board, which is composed of the Director of Public Service and Safety, the City Engineer and the Director of the Water Pollution Control Department.
(i) All service charges collected by the City Engineer under this section shall be deposited in the Sewerage Revenue Fund.

If the land for which a sewer permit or permits have been obtained is annexed to the City within a year of the permit date, the owner shall receive a refund based on fees shown in Section 923.015.

923.10 REVOCATION OF PERMIT; RIGHTS ACQUIRED, NOT VESTED.

All permits granted as provided in the preceding sections shall be revocable at any time at the pleasure of the City Engineer or Council. Such lot owners shall acquire no vested rights by reason of the granting of such permit.

923.11 EXPENSE OF CONNECTIONS; SUPERVISION.

All connections made under the provisions of the preceding sections shall be made at the expense of the lot owners and under the supervision and direction of the City Engineer.

923.12 REMOVAL OF CONNECTIONS.

The City Engineer may, at any time, cause any connection made under the provisions of the preceding sections to be removed.

923.13 MATERIALS, JOINTS AND CONNECTIONS.

The materials listed below may be accepted for sanitary gravity sewer construction, however, the selection of materials should take into account the nature of the wastes to be transported, compatibility with adjacent and connection materials, soils and the cleaning methods which will be used.

(a) **Rigid Pipes**	**Material Specifications**	**Joint Specifications**
Asbestos – Cement	ASTM - C 428	ASTM - D 1869
	ASTM - C 644	
Cast Iron	ANSI - A 21.6	ANSI - A 21.11
	AWWA - C 106	AWWA - C 111
	ANSI - A 21.8	
	AWWA - C 108	
Clay	ASTM - C 700	ASTM - C 425
Ductile Iron	ANSI - A 21.51	ANSI - A 21.11
	AWWA - C 151	AWWA - C 111
Non-reinforced Concrete	ASTM - C 14	ASTM - C 443
Concrete Pressure Pipe	AWWA - C 300	AWWA - C 300
	AWWA - C 301	AWWA - C 301
	AWWA - C 302	AWWA - C 302
	ASTM - C 361	ASTM - C 361
Reinforced Concrete	ASTM - C 76	ASTM - C 443
	ASTM - C 655	
	ODOT - 706.02	
	ODOT - 706.03	
	ODOT - 706.14	
(b) **Flexible Pipes**	**Material Specifications**	**Joint Specifications**
Acrylonitrile	ASTM - D 2680	ASTM - D 2680

Butadiene Styrene (ABS) Composite		"O" ring preferred
Acrylonitrile Butadiene Styrene (ABS)	ASTM - D 2661 ASTM - D 2751 (4-inch and 6- inch building sewers only)	ASTM - D 2661 ASTM - D 2235 (solvent cemented)
Polyvinyl Chloride (PVC)	ASTM - D 3034 ASTM - D 3033	ASTM - D 3212
Steel	AWWA - C 201 AWWA - C 202	AWWA - C 201 AWWA - C 202
(c) Manholes	Material Specifications	Joint Specifications
Precast Concrete	ASTM - C 478	ASTM - C 443
(d) Ditch Pipe	Material Specifications	Joint Specifications
Reinforced Cement	ASTM - C 76	ASTM - C 443
Corrugated Steel	ASTM - A 444 ASSHTO - M 218	Std. Connection Bond
Polyvinyl Chloride	ASTM - D 2241 Minimum wall thickness	D – 3139 (.50 inches)

923.14 INFILTRATION; TESTS.

After completion of the sewer, the City may require an infiltration or exfiltration test, whichever is decided by the City Engineer to be most practical at the time of completion. The infiltration shall not exceed 500 gallons of water per inch of pipe diameter per mile of sewer in a twenty-four hour period. Exfiltration shall not exceed 500 gallons of water per inch of diameter of pipe per mile of sewer in a twenty-four hour period based on a two-foot minimum head. The maximum infiltration and/or exfiltration may be lowered by a note on the plans, special permit or in the general specifications of the City. This test shall be made by the contractor at his expense under the supervision of the City Engineer.

923.15 METHOD OF LAYING SANITARY SEWER SERVICE PIPES.

All trenches shall be dug so that there shall be a clear space of not less than six inches between the sewer to be laid and the side of the trench or the timbers that may be used to keep the sides in place. The contractor will be required to maintain a clear width of roadway of at least ten feet.

Where possible, the sanitary sewer service pipes in residential districts shall have a minimum depth at the curb line of seven feet below the established grade of the curb, and in the business district at such depth as may be ordered by the Director of Engineering, Planning and Building. Where the depth of the main sewer will not permit a minimum depth of seven feet below the established grade of the curb, then the service pipes shall be laid from the main to the curb line with an inclination of one-eighth of an inch to each lineal foot of service. When laying the water service pipe in the same trench as the sanitary sewer service pipe, the trench shall be excavated of sufficient width at the top to allow for a benching not less than eight inches in width on which the water service shall be laid. The remaining depth of the trench for the sanitary sewer service shall be a width to provide the necessary clearance as hereinbefore specified.

Each new sanitary service lateral shall have an exterior clean out within five feet of the foundation. The clean out shall be constructed to the satisfaction of the Director of

Engineering, Planning and Building, or his designated appointee. The clean out shall be constructed of the same materials as the sanitary sewer service lateral and shall have a removable watertight plug to prevent the infiltration of clean water. The clean out shall be of such design to allow sewer cleaning equipment access to the sanitary sewer service lateral, outside of the structure serviced by same.

Each connection at its junction with the main sewer shall be well and solidly supported so that the weight of the backfilling will not settle the pipe, causing the sockets to break and destroy the tightness of the joints. Each length of pipe shall be laid on a firm bed. The bottom of the trench under each bell shall be excavated so as to give the body of the pipe a solid bearing on the trench bottom of its entire length and permit the making of the joint. However, all pipe shall be installed in accordance with the manufacturer's specifications.

923.16 METHOD OF MAKING CONNECTIONS.

In making connections in all pipe sewers when "Y" branches have not been inserted at the time of the building of the sewer, a "Y" branch shall be inserted. The breaking of the shell of a pipe sewer and the insertion of a house connection shall not be permitted. Where a tap-in is to be made, an approved saddle shall be used which shall properly fit the curvature of the outside diameter of the sewer main to be tapped. The saddle shall be installed in accordance with the manufacturer's specifications, or if directed by the City Engineer, the saddle shall be banded to the existing sewer main using stainless steel or galvanized banding straps and thoroughly encased in class "C" concrete a minimum of three inches around the saddle, existing sewer main and all joints.

Where a tap is made, care shall be taken to insure that no broken pipe, brick or concrete enters the existing sewer.

Should the existing sewer pipe being tapped for a connection be broken in the wrong fashion, or in such a way that the structural integrity of the pipe is damaged, that section shall be removed in its entirety and replaced in accordance with procedures established by the City Engineer and done in the presence of the City Engineer or his representative.

923.17 METHOD AND REQUIREMENTS OF INSTALLATION OF PIPE IN STREET DITCHES BY RESIDENTS.

(a) No installing of ditch pipe shall be permitted in the City without a permit issued by the City Engineer's office.

A permit shall be issued only to a licensed and bonded sewer building contractor, licensed plumber or the property owner. There shall be no charge for the permit.

The permit holder shall be required to do the work as directed by the City Engineer or his representative.

All work shall conform to the specifications as established by the City Engineer and pass inspection to insure adherence.

(b) The size of the pipe to be installed should be the same as the downstream driveway pipe, but no less than ten inches in diameter and should be laid with open joints, true to line and grade, as established by the City Engineer.

The pipe should be either heavy-duty concrete, corrugated steel or polyvinyl chloride as established by Section 923.13(d).

When backfilling the pipe, care should be exercised to keep a swale over the pipe. The swale shall be at least six inches below the edge of the pavement or the sidewalk; whichever is the lowest so as not to cause water to lie on the street pavement or sidewalk. Any temporary standing storm water will be over the swale.

A drain or inlet will be provided at the lowest point in the swale to permit storm water to enter the ditch pipe. There shall be at least one inlet every fifty feet.

The inlet can be built out of brick over an opening in the ditch pipe, or a tee inserted in the ditch pipe, turned up and extended to the ground surface. A grate or grating of concrete, steel or iron shall be provided in the opening of the inlet to prevent injury and to keep leaves and debris from entering the ditch pipe. The property owner shall be responsible for keeping the grating clear.

(c) If these specifications are not adhered to and the installation causes water to stand on the street pavement or sidewalk, the City reserves the right to remove the ditch pipe and restore the ditch so as to eliminate the problem.

The City also reserves the right to remove the ditch pipe and appurtenances as required for future street construction.

923.18 CONNECTION CONTROL.

When determined by the Director of Public Service and Safety that additional connections to the sewer system will overload a specific sanitary sewer or the sewage treatment plant, the Director may order new connections to be limited, banned or controlled. Applicants for connection may appeal the order of the Director to Council for a final ruling.

923.99 PENALTY.

Whoever violates any provision of this chapter for which no penalty is otherwise provided shall be fined not more than two hundred fifty dollars ($250.00) or imprisoned not more than thirty days or both for each offense.

CHAPTER 924
Sewer Wastes

924.01 PURPOSE AND POLICY.

This chapter sets forth uniform requirements for dischargers into the City sewage collection and treatment systems, and enables the City to protect public health and welfare in conformity with all applicable local, state and federal laws relating thereto.

The objectives of this chapter are:

(a) To prevent the introduction of pollutants into the sewage treatment plant which will interfere with the normal operation of the system or contaminate the resulting municipal sludge;

(b) To prevent the introduction of pollutants into the sewage treatment plant which do not receive adequate treatment, and which will pass through the system into receiving waters or the atmosphere or otherwise be incompatible with the system;

(c) To improve the opportunity to recycle and reclaim wastewater and sludge from the system.

This chapter provides for the regulation of discharges into the sewage disposal works through the enforcement of administrative regulations.

924.02 DEFINITIONS.

As used in this chapter, the following words and phrases shall have the following meanings:

(1) "Act" means the Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500, and any amendments thereto; as well as any guidelines, limitations and standards promulgated by the U.S. Environmental Protection Agency pursuant to the Act.

(2) "Biochemical oxygen demand" (BOD) means the quantity of oxygen utilized in the biochemical oxidation of organic matter expressed in parts per million by weight under standard laboratory conditions for five days at a temperature of twenty degrees Centigrade. The laboratory determinations shall be made in accordance with procedures set forth in "Standard Methods" (See subsection (33)).

(3) "Chemical oxygen demand" (COD) means the quantity of oxygen utilized in the chemical oxidation of organic matter expressed in parts per million by weight, in accordance with procedures set forth in "Standard Methods" (See subsection (33)).

(4) "City" means the City of Warren, Ohio.

(5) "Discharger" means any nonresidential user who discharges an effluent into the City sewage disposal works by means of pipes, conduits, pumping stations, force mains, constructed drainage ditches, surface water intercepting ditches and all constructed devices and appliances appurtenant thereto.

(6) "Environmental Protection Agency" (EPA) means the U.S. Environmental Protection Agency, or where appropriate "Environmental Protection Agency" may also be used as a designation for the Administrator or other duly authorized official of such Agency.

(7) "Ground garbage" means the residue from the preparation, cooking and dispensing of food that has been shredded to such degree that all particles will be carried freely in

suspension under the flow conditions normally prevailing in public sewers with no particle greater than one-half inch in any dimension.

(8) "Industrial user/discharger" means the source of indirect discharge to the POTW from any nondomestic source regulated under Section 307(b), (c) or (d) of the Federal Water Pollution Control Act.

(9) "Industrial waste" means any solid, liquid or gaseous substance discharged, permitted to flow or escaping from any industrial manufacturing, commercial or business establishment or process, or from the development, recovery or processing of any natural resource.

(10) "Interference" means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

A. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

B. Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of SWDA), the Clean Air Act, the Toxic Substances Control Act and the Marine Protection, Research and Sanctuaries Act.

(11) "New source" means any building, structure, facility or installation from which there is or may be a discharge of pollutants, the construction of which commenced after the publication of proposed pretreatment standards under Section 307(c) of the Act modified and defined for implementation in accordance with 40 CFR Section 403.3 paragraph (K) and Section 403.6 paragraph (B) provided that:

A. The building, structure, facility or installation is constructed at a site at which no other source is located; or

B. The building, structure, facility or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

C. The production of wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source will be considered.

(12) "National Categorical Pretreatment Standard" means any regulation containing pollutant discharge limits promulgated by the U.S. EPA in accordance with Section 307(b) and (c) of the Act (33 U.S.C. 1347) which applies to a specific category of industrial dischargers.

(13) "National Pollutant Discharge Elimination System" (NPDES) permit means the permit issued to the City pursuant to Section 402 of the Act (33 U.S.C. 1342).

(14) "Oil and grease" means a group of substances with similar physical characteristics determined quantitatively on the basis of their common solubility in freon in accordance with procedures set forth in "Standard Methods" (See subsection (33)).

(15) "Parts per million" (ppm) means a weight-to-weight ratio; the parts-per-million value multiplied by the factor 8.345 is equivalent to pounds per million gallons of water. "Milligrams per liter" (mg/l) is a synonymous term.

(16) "Pass through" means the discharge of pollutants through the POTW into navigable waters in quantities or concentrations which are a cause of or significantly contribute to a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

(17) "Person" means any and all persons, natural or artificial, including any individual, firm, company, municipal or private corporation, association, society, institution, enterprise, governmental agency or other entity.

(18) "Pollutant" means the dredged spoil, solid waste, incinerator residue, wastewater, garbage, wastewater sludge, munition, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, commercial, domestic and agricultural waste discharged into water.

(19) "Pretreatment" means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into the City sewage treatment plant. The reduction or alteration can be obtained by physical, chemical or biological processes, or process changes by other means, except as prohibited by 40 CFR Section 403.6 (d).

(20) "Public sewer" means a sewer provided by or subject to the jurisdiction of the City. "Public sewer" also includes sewers within or outside the City boundaries that serve one or more persons and ultimately discharge into the City sewer system even though those sewers may not have been constructed with City funds.

(21) "pH" means the logarithm, base 10, of the reciprocal of the hydrogen ion concentration expressed in moles per liter. "pH" shall be determined in accordance with procedures set forth in "Standard Methods" (See subsection (33)).

(22) "Safety-Service Director" means the Safety-Service Director of the City or his duly authorized representative.

(23) "Sewage" means the water-carried human, animal and household wastes in a public or private drain, and may include groundwater infiltration, surface drainage and industrial wastes.

(24) "Sewage disposal works" means all facilities for collection, pumping, treating and disposing of sewage and industrial waste.

(25) "Sewage treatment plant" means an assemblage of devices, structures and equipment for treatment of sewage and industrial waste.

(26) "Sewer" means a pipe or conduit for conveying sewage or any other waste liquids, including storm, surface and groundwater drainage.

(27) "Shall" means a mandatory requirement; "may" is permissible.

(28) "Significant industrial user" (SIU) includes:

A. All categorical industrial users;

B. Any noncategorical industrial user which:

1. Discharges 25,000 gallons per day or more of process water ("process water" includes sanitary, noncontact cooling and boiler blowdown wastewater); or

2. Contributes a process wastewater which makes up five percent (5%) or more of the average dry weather hydraulic or organic (BOD, TSS, etc.) capacity of the treatment plant; or

3. Has a reasonable potential, in the opinion of the Control or Approval Authority, to adversely affect the POTW (inhibition, pass through, sludge contamination or endangerment of POTW workers).

(29) "Significant noncompliance" (SNC) is a relative measure of industrial user noncompliance determined if the user's violations meet one or more of the following criteria:

A. Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent (66%) or more of all of the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter;

B. Technical review criteria (TRC) violations, defined here as those in which thirty-three percent (33%) or more of all of the measurements for each pollutant parameter taken during a six-month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC (TRC=1.4 for BOD, TSS, fats, oil and grease, and 1.2 for all other pollutants except pH);

C. Any other violation of a pretreatment effluent limit (daily maximum or longer term average) that the Director determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of POTW personnel or the general public);

D. Any discharge of a pollutant that has caused imminent endangerment of human health, welfare or to the environment or has resulted in the POTW's exercise of emergency authority to halt or prevent such a discharge;

E. Failure to meet, within ninety days after the schedule date, a compliance schedule milestone contained in a wastewater discharge permit or enforcement order for starting construction, completing construction or attaining final compliance;

F. Failure to provide, within thirty days after the due date, required reports such a baseline monitoring reports, ninety-day compliance reports, periodic self-monitoring reports and reports on compliance with compliance schedules;

G. Failure to accurately report noncompliance;

H. Any other violation or group of violations which the Director determines will or has adversely affected the operation or implementation of the City's pretreatment program.

(30) "Sludge" means any solid or semisolid waste generated by a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility or any other waste having similar characteristics and effects as defined in standards issued under Sections 402 and 405 of the Act and in the applicable requirements under Sections 2001, 3004 and 4004 of the Solid Waste Disposal Act (PL 94-580).

(31) "Slug" means any discharge of water, sewage or industrial waste which, in concentration of any given constituent or in quantity of flow, causes interference to the sewage treatment plant.

(32) "Standard Industrial Classification (SIC) Manual" means the SIC Manual, 2972, Office of Management and Budget, as amended and supplemented.
(33) "Standard Methods" means the current edition of Standard Methods for the Examination of Water and Wastewater as published by the American Public Health Association, American Water Works Association and Water Pollution Control Federation.
(34) "Superintendent" means the Superintendent of the City Sewage Treatment Plant or his duly authorized representative.
(35) "Suspended solids" (SS) means solids that either float on the surface of, or are in suspension or will settle in water, sewage or industrial waste, and which are removable by a laboratory filtration device. Quantitative determination of suspended solids shall be made in accordance with procedures set forth in "Standard Methods" (See subsection (33)).
(36) "Toxic pollutants" means any pollutant or combination of pollutants which is or can potentially be harmful to public health or the environment including those listed as toxic in regulations promulgated by the Administrator of the Environmental Protection Agency under the provisions of CWA 307(a) or other Acts.
(37) "Upset" means an exceptional incident in which a discharger unintentionally and temporarily is in a state of noncompliance with the standards set forth in this chapter due to factors beyond the reasonable control of the discharger, and excluding noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventive maintenance or careless or improper operation thereof.
(38) "Wastewater" means the liquid and water-carried or domestic wastes from dwellings, commercial buildings, industrial facilities and institutions together with any groundwater, surface water and stormwater that may be present, whether treated or untreated, which is contributed into or permitted to enter the City sewage disposal works.

924.03 GENERAL DISCHARGE PROHIBITIONS.

No person shall discharge, or cause to be discharged, any of the following described water or wastes to any public sewer:
(a) Pollutants which create a fire or explosion hazard in the POTW including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or sixty degrees Centigrade using the test method specified in 40 CFR 261.21.

(b) No person shall discharge, or cause to be discharged, any of the following described water or wastes to any public sewer: pollutants which result in the presence of toxic gases, vapors or fumes within the POTW in a quantity that may cause acute worker health and safety problems.
(c) Any solids, greases, slurries or viscous material of such character or in such quantity that may cause an obstruction to the flow in the sewer or otherwise interfere with the proper functioning of the sewage disposal works.
(d) Any toxic substances, chemical elements or compounds in quantities sufficient to impair the operation or efficiency of the sewage treatment plant or that will pass through the sewage treatment plant and cause the effluent thereof to exceed NPDES permit limits, or otherwise interfere with the effective and final disposal of sludge removed or separated

by the sewage treatment plant. This includes but is not necessarily limited to the substances and respective limitations listed in Section 924.04.

(e) Any liquids having a pH lower than 6.0 or higher than 9.0, or having any corrosive property capable of causing damage or hazard to structures, equipment or personnel of the sewage disposal works.

(f) Any wastewater having a temperature which will inhibit biological activity at the sewage treatment plant resulting in interference; but in no case, wastewater with a temperature at the introduction into the treatment plant which exceeds forty degrees Centigrade (104 degrees Fahrenheit).

(g) Any slug release, which will mean any pollutant, including oxygen-demanding pollutants (BOD, etc.) released in such volume or strength as to cause interference to the sewage treatment plant.

(h) Any wastewater containing any radioactive wastes or isotopes of such halflife or concentration which exceeds limits established by the City in compliance with applicable state or federal regulations.

(i) Any substance with objectionable color not removed in the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions.

(i) Discharges of petroleum oil, nonbiodegradable cutting oil or products of mineral oil origin are prohibited in amounts that can pass through or cause interference.

924.04 SPECIFIC POLLUTANT LIMITATIONS.

(a) Toxic Pollutant Limitations. No person shall discharge or cause to be discharged into a public sewer, wastes which contain any of the pollutants contained in the following list of toxic pollutants unless the person is issued orders by the Superintendent which allow the discharge of such pollutants. In the absence of such specific orders, no person shall discharge any of the following toxic pollutants except as such pollutants may occur and only in the concentrations such pollutants may occur in the water supply to their premises. Discharge of such pollutants allowed by orders shall not exceed the following maximum daily or monthly average concentrations:

Pollutant	**Daily Max**
Cadmium (total)	1.9500 Mg/l
Chromium (total)	1.5000 Mg/l
Chromium (hex)	1.4000 Mg/l
Copper	0.830 Mg/l
Lead	0.890 Mg/l
Mercury	0.0035 Mg/l
Nickel	1.8000 Mg/l
Silver	1.2000 Mg/l
Zinc	1.2100 Mg/l
Antimony	0.3290 Mg/l
Cyanide (free)	0.3350 Mg/l
Selenium	1.4700 Mg/l
Arsenic	0.200 Mg/l
Molybdenum*	0.699 Mg/l

*As to Alcan Aluminum Corporation only, the limit for Molybdenum is six (6) pounds per day. (Ord. 11784/04. Passed 7-28-04.)

(b) Compatible Pollutant Limitation. No wastewater shall be discharged which exceeds the maximum daily concentration established for the following compatible pollutants without permission from the Superintendent and payment of the appropriate surcharge:

Pollutant	**Maximum Daily Concentration (ppm)**
BOD	200
COD	600
Ammonia nitrogen	35
Oil and grease (Freon soluble)	100
Phosphate (as P)	15
Solids (total suspended)	250
Solids (total dissolved)	1500
PH	Within the range of 6 to 9 at all times

924.05 DILUTION.

No discharger shall increase the use of potable or process water for the purpose of diluting a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the standards set forth in this chapter.

924.06 NATIONAL CATEGORICAL PRETREATMENT STANDARDS.

National Categorical Pretreatment Standards as promulgated by the U.S. Environmental Protection Agency (EPA) pursuant to the Act shall be met by all dischargers of the regulated industrial categories. In any instances in which the categorical pretreatment standards are more stringent than limitations established in this chapter, the categorical pretreatment standards shall apply.

When the limits in a categorical pretreatment standard are expressed only in terms of mass of pollutant per unit of production, the City may convert the limits to equivalent limitations expressed either as mass or pollutant discharged per day of effluent concentration for purposes of calculating effluent limitations applicable to individual industrial users per 40 CFR 403.6 (C) (2).

An application for modification of the National Categorical Pretreatment Standards prepared in accordance with 40 CFR 403.7 may be considered for submittal to the Regional Administrator by the City, when the sewage treatment plant achieves consistent removal of the pollutants. "Consistent removal" means the reduction in the amount of a pollutant or alteration of the nature of the pollutant by the sewage treatment plant to a less toxic or harmless state in the effluent provided that the plant meets the NPDES permit limits established for that pollutant and the sludge meets all applicable requirements for the preferred method of disposal.

924.07 RIGHT OF REVISION.

The City reserves the right to amend this chapter to provide for more or less stringent limitations or requirements on discharges to the sewage treatment plant where deemed necessary to comply with the objectives set forth in Section 924.01.

924.08 ACCIDENTAL DISCHARGES.

Dischargers shall immediately notify treatment plant personnel upon the accidental discharge of wastes in violation of this chapter, including slugloads and other discharges which could cause problems to the POTW, treatment processes and the receiving waters. The notification shall include location of discharge, date and time thereof, type of waste, concentration and volume and corrective actions.

This notification shall be followed, within fifteen days of the date of occurrence, by a detailed written statement describing the causes of the accidental discharge and the measures being taken to prevent future occurrence.

Such notification shall not relieve dischargers of liability for any fines provided for in Section 924.99, or for any expense, loss or damage to the sewer system, treatment plant or treatment process, or for any fines imposed on the City on account thereof.

In order that employees of dischargers be informed of City requirements, dischargers shall make available to their employees copies of this chapter together with such other wastewater information and notices which may be furnished by the City from time to time directed toward more effective water pollution control. A notice shall be furnished and permanently posted on the discharger's bulletin board advising employees whom to call in case of an accidental discharge in violation of this chapter.

924.09 ACCIDENTAL DISCHARGE PREVENTIVE MEASURES.

Each discharger shall provide protection from accidental discharge of prohibited or regulated materials or substances established by this chapter. Any direct or indirect connection or entry point for persistent or deleterious wastes to the discharger's plumbing or drainage system shall be eliminated. Where such action is impractical or unreasonable, the discharger shall appropriately label such entry points to warn against discharge of such wastes in violation of this chapter. Where necessary, facilities to prevent accidental discharge of prohibited material shall be provided and maintained at the discharger's expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the Superintendent for review and shall be approved by the Superintendent before construction of the facility. Review and approval of such plans and operating procedures shall not relieve the discharger from the responsibility to modify this facility as necessary to meet the requirements of this chapter.

924.10 OPERATING UPSETS.

Any discharger which experiences an upset in operations which places the discharger in a temporary state of noncompliance with this chapter shall inform the Superintendent thereof within twenty-four hours of first awareness of the commencement of the upset. Where such information is given orally, a written follow-up report thereof shall be filed by the discharger with the Superintendent within five days. The report shall specify:

(a) Description of the upset, the cause thereof and the upset's impact on a discharger's compliance status.

(b) Duration of noncompliance, including exact dates and times of noncompliance, and if the noncompliance continues, the time by which compliance is reasonably expected to occur.

(c) All steps taken or to be taken to reduce, eliminate and prevent recurrence of such upset or other conditions of noncompliance.

A documented and verified bona-fide operating upset shall be an affirmative defense to any enforcement action brought by the City against a discharger for any noncompliance with the chapter, which arises out of violations alleged to have occurred during the period of the upset.

924.11 CONTROL OF ADMISSIBLE WASTES.

(a) No person shall discharge sewage or industrial wastes to any sewer within the jurisdiction of the City and/or to the sewage treatment plant without having first complied with the terms of this chapter, including any subsequent compliance schedules that may be required should additional pretreatment and/or operation and maintenance be necessary.

(b) Within ninety days after passage of this chapter, existing dischargers of industrial wastes to a public sewer who have not previously done so shall prepare and file with the City a report that shall include pertinent data relating to the quantity and characteristics of the wastes discharged to the sewage disposal works. Should a discharger desire to expand or change his operations which will increase or change the amount or nature of pollutants in the discharge at any time, or after filing such report, he shall be responsible for preparing and filing another report which reflects these changes prior to changing his operations.

(c) Similarly, each person moving into an existing location connected to a public sewer or each person desiring to make a new connection to a public sewer for the purpose of discharging industrial wastes shall prepare and file with the City a report that shall include actual or predicted data relating to the quantity and characteristics of the waste to be discharged. Such report shall be filed prior to moving into an existing location or prior to making any connection to the public sewer.

(d) Such report shall be made on written forms provided by the City and shall include:

(1) Disclosure of name, address and location of the discharger;

(2) Disclosure of Standard Industrial Classification (SIC) number according to the Standard Industrial Classification Manual, Bureau of the Budget, 1972, as amended;

(3) Disclosure of wastewater constituents and characteristics including but not limited to those mentioned in this chapter, as determined by bona-fide chemical and biological analyses;

(4) Disclosure of time and duration of discharges;

(5) Disclosure of average daily flow rates, in gallons per day, including seasonal variations. All flows shall be measured unless other verifiable techniques are approved by the Superintendent due to cost or nonfeasibility;

(6) Disclosure of site plans, floor plans, mechanical and plumbing plans and details to show all sewers, sewer connections, inspection manholes, sampling chambers and appurtenances by size, location and elevation;

(7) Description of activities, facilities and plant processes on the premises including all material which are or may be discharged to the sewage disposal works;

(8) Disclosure of the nature and concentration of any pollutants or materials prohibited by this chapter in the discharge, together with a statement regarding whether or not compliance is being achieved with this chapter on a consistent basis and if not, whether

additional operation and maintenance activities and/or additional pretreatment is required for the discharger to comply with this chapter;

(9) Where additional pretreatment and/or operation and maintenance (O and M) activities will be required to comply with this chapter, the discharger shall provide a declaration of the shortest schedule by which the discharger will provide such additional pretreatment or O and M according to the conditions in Section 924.13;

(10) Disclosure of each product produced by type, amount, process and rate of production;

(11) Disclosure of the type and amount of raw materials utilized;

(12) Signatory requirements: This report shall include the following certification statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Additionally, this report shall be signed by:

A. A president, secretary, treasurer or vice president of a corporation, or;

B. A general partner or proprietor if the industrial user is a partnership or sole proprietorship respectively, or;

C. A duly authorized representative of the above if the authorization is previously made in writing to the Superintendent.

The Superintendent shall evaluate the complete report and data furnished by the discharger and may require additional information. Within thirty days after full evaluation and acceptance of the data furnished, the Superintendent shall notify the discharger of the City's acceptance thereof.

Should the industrial user fall under a categorical pretreatment standard, the discharger shall be classified as an existing or new source. If the facility is classified as a new source, they shall install and start up pretreatment technology prior to discharge and achieve compliance with the shortest time feasible, not to exceed ninety days after commencement of discharge.

924.12 STANDARDS MODIFICATION.

The City reserves the right to amend this chapter and the terms and conditions hereof in order to assure compliance with applicable laws and regulations. Within nine months of the promulgation of a National Categorical Pretreatment Standard, this chapter shall be amended to require compliance by dischargers with such standards within the time frame prescribed by such standards. All National Categorical Pretreatment Standards adopted after the promulgation of this chapter shall be adopted by the City as part of this chapter. Any discharger subject to a National Categorical Pretreatment Standard shall submit to the City within 180 days after the promulgation of an applicable

National Categorical Pretreatment Standard, the additional information required by Section 924.11 (d)(8) and (9). The discharger shall be informed of any proposed changes in the chapter at least thirty days prior to the effective date of the change. Any changes or new conditions in the chapter shall include a reasonable time schedule for compliance.

924.13 ISSUANCE OF ORDERS.

The Superintendent may issue orders to any industrial user to insure compliance with any requirements under this chapter including applicable National Categorical Pretreatment Standards, other discharge limits and reporting requirements. Such orders shall be in the form of a directive signed by the Superintendent and may include but shall not be limited to a list of pollutants to be monitored, location of sampling points, type of sample, frequency of sampling and compliance schedules to meet discharge limits.

(a) Compliance Schedules. When in the opinion of the Director, it becomes necessary for industrial users to install technology or provide additional operation and maintenance (O and M) to meet any condition of this chapter or applicable administrative order, the Director shall require the development of the shortest schedule by which the industrial user will provide this additional technology or O and M.

(b) Periodic Compliance Reports. All industrial users shall submit periodic compliance reports indicating the nature and concentration of pollutants in their discharge. The frequency of reporting shall be as prescribed in the industrial user's administrative orders.

Results of sampling above the minimum required shall also be reported if analyses were conducted according to the methodology in Section 924.16. Where the results of self-monitoring indicates a violation of pretreatment standards, the industrial user shall notify the Director within twenty-four hours of becoming aware of the violation. The user shall also resample for the pollutant(s) in violation and report the results of resampling within thirty days of becoming aware of the initial violation.

These parts shall include the certification statement and shall be signed by an authorized representative of the discharger as defined in Section 924.11(d)(12)

924.14 MONITORING FACILITIES.

Each discharger shall provide and operate at the discharger's own expense a monitoring facility to allow inspection, sampling and flow measurement of each sewer discharge to the sewage disposal works. Each monitoring facility shall be situated on the discharger's premises, except where such a location would be impractical or cause undue hardship on the discharger, the City may concur with the facility being constructed in the public street or sidewalk area providing that the facility is located so that it will not be obstructed by landscaping or parked vehicles. There shall be ample room in or near such sampling facility to allow accurate sampling and preparation of samples for analysis. The facility, sampling and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expense of the discharger.

All monitoring facilities shall be constructed and maintained in accordance with all applicable local construction standards and specifications.

924.15 INSPECTION AND SAMPLING.

(a) The City may inspect the monitoring facilities of any discharger to determine compliance with the requirements of this chapter. The discharger shall allow the Superintendent or its representatives, upon presentation of credentials of identification, to enter upon the premises of the discharger at all reasonable hours, for the purposes of inspection, sampling or records examination. The City shall have the right to set up on the discharger's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations.

(1) The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events. Under no circumstances shall any increment exceed nine months.

(2) Not later than fourteen days following each date in the schedule and the final date for compliance, the industrial user shall submit a progress report to the Director including, at a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay and the steps being taken by the IU to return to the schedule established.

(b) Final Compliance Report. Any industrial user subject to categorical pretreatment standards shall submit a report indicating whether the user has achieved compliance. This report is to be submitted to the Superintendent within ninety days following the date for final compliance with applicable categorical pretreatment standards or in the case of a new source discharger, following commencement of the introduction of wastewater into the POTW. The following information shall be included in this report:

(1) Measured average daily and maximum flows of regulated process streams and other non-regulated streams.

(2) Results of sampling and analysis regulated pollutants from each regulated process. For pH, cyanide, total phenols, oil and grease, sulfide and volatile organics a minimum of four grab samples shall be analyzed. For all other pollutants, a minimum of one twenty-four hour flow proportional composite sample shall be obtained. Samples should be taken immediately downstream of pretreatment facilities if such exist or immediately downstream of regulated processes if no pretreatment facilities exist. The samples shall be representative of daily operations.

(3) For industrial users subject to equivalent mass or concentration limits established by the Superintendent, this report shall include a reasonable measure of the user's long-term production rate. For industrial users subject to production-based standards, this report shall include the user's actual production during the appropriate sampling period.

(4) A statement indicating whether pretreatment standards are being met on a consistent basis, and if not, a statement indicating whether additional pretreatment and/or operation and maintenance will be required to meet the pretreatment standards in accordance with Section 924.13.

This report shall include the certification statement and shall be signed by an authorized representative of the discharger as defined in Section 924.11(d)(12).

924.16 ANALYSES OF WASTES.

Laboratory procedures used in the examination of industrial wastes shall be those set forth in 40 CFR Part 136. However, alternate methods for certain analyses of industrial wastes may be used subject to mutual agreement between the City and the person.

Determination of the character and concentration of the industrial wastes performed by a discharger in compliance with his self-monitoring obligations shall be made by a qualified person or testing laboratory acceptable to the City.

The person whose wastes are being tested by the City shall promptly reimburse the City for the taking of samples, the per diem rate in effect at that time for each day, or part thereof, that such samples are taken. The fee for analyzing such samples shall be reimbursed in accordance with the fee schedule in effect at the time.

924.17 CONFIDENTIAL INFORMATION.

All information and data acquired by any means authorized in this chapter shall be available to the public or any other governmental agency without restriction except as hereinafter provided for.

Information and data may be deemed confidential by the City upon written request by any person for confidentiality, provided, however, the person is able to demonstrate to the satisfaction of the Superintendent that the release or publication of such information would divulge information, methods, processes or other trade secrets which may jeopardize the applicant's competitive position.

Information, data or material deemed confidential shall not be available for public inspection but shall be available to any governmental agency for studies and/or judicial review provided that such confidential information shall not be provided to anyone until and unless adequate notification is given to the applicant.

All records containing confidential material shall be stored in locked files.

Wastewater characteristics and constituents shall not be considered as confidential information.

924.18 RECORDS RETENTION.

All dischargers subject to this chapter shall retain and preserve for no less than three years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made by or in behalf of a discharger in connection with its discharge. All records which pertain to matters that are the subject of enforcement or litigation activities brought by the City pursuant hereto shall be retained and preserved by the discharger until all enforcement activities have been concluded and all periods of limitation with respect to any and all appeals have expired.

924.19 EMERGENCY SUSPENSION OF SERVICE.

The City may for good cause shown suspend the wastewater treatment service to a discharger, without issuing a notice of violation, when it appears to the City that an actual or threatened discharge presents or threatens an imminent or substantial danger to the health or welfare of persons. Any discharger notified of the suspension of the City's wastewater treatment service shall immediately cease all discharges. In the event of

failure of the discharger to comply voluntarily with the suspension order, the City shall have the right to remove or close sewer connections and enter upon the property for accomplishing such purposes. The Superintendent shall reinstate the wastewater treatment service pending proof by the discharger of the elimination of the noncomplying discharge or conditions creating the threat of imminent or substantial danger as set forth above.

924.20 NOTIFICATION OF VIOLATION.

Whenever the City finds that any discharger has engaged in conduct which violates any provision of this chapter except for emergency suspension (Section 924.19) and falsifying information (Section 924.99(c)), the City shall serve or cause to be served upon such discharger, a written notice by certified or registered mail, return receipt requested, stating the nature of the alleged violation. Service shall be made on any authorized representative of the discharger. The discharger shall respond personally or in writing to the City within the time period specified in the notice advising of its position with respect to the allegations. Thereafter, the parties shall meet to ascertain the veracity of the allegations and where necessary, establish a plan for the satisfactory correction thereof.

924.21 SHOW CAUSE HEARING.

Where the violation referred to in Section 924.20 is not corrected by timely compliance, the City may order any discharger which causes or allows conduct prohibited by Section 924.20 to show cause before the Safety-Service Director or his duly authorized representative why termination of wastewater treatment service should not be taken. A written notice shall be served on the discharger by certified or registered mail, return receipt requested, specifying the time and place of a hearing to be held by the Safety-Service Director or designee regarding the violation, the reasons why the enforcement action is to be taken, the proposed enforcement action and directing the discharger to show cause why the proposed enforcement action should not be taken. The notice of the hearing shall be served no less than ten days before the hearing. Service may be made on any agent, officer or authorized representative of a discharger. The proceedings at the hearing shall be considered by the Safety-Service Director who shall then enter appropriate orders with respect to the alleged improper activities of the discharger.

924.22 REVOCATION OF SERVICES.

In accordance with the procedures specified in Sections 924.20 and 924.21, the City shall have the authority to terminate wastewater treatment services to any discharger who fails to correct a violation of this chapter within the time period specified after being issued a notice of violation and given the opportunity to show cause why such termination should not be taken.

924.23 CONTROLLED DISCHARGE OF ANY TRUCKED OR HAULED WASTE.

No person shall access the sewer system or POTW for any activity including discharge of hauled septic or industrial wastes except at locations and at times as

designated by the Director. Any removal of manhole lids, or other access to the sewer system for the purpose of discharging wastes at times and/or locations other than those designated by the Director, or without the expressed permission of the Director, shall be considered a violation and shall be subject to enforcement action including fines and penalties allowed under this chapter.

924.24 JUDICIAL PROCEEDINGS.

Following the entry of any order by the City with respect to the conduct of a discharger contrary to the provisions of Section 924.19, the Law Director may, following the authorization of such action by the City, commence an action for appropriate legal and/or equitable relief in the Court of Common Pleas.

924.25 ANNUAL PUBLICATION.

Annually, the City shall publish in the local newspaper a list of all industrial users, which at any time during the previous twelve months were in significant noncompliance with applicable pretreatment standards or requirements.

924.26 RIGHT OF APPEAL.

Any discharger or any interested party shall have the right to request in writing an interpretation or ruling by the City on any matter covered by this chapter and shall be entitled to a prompt written reply. In the event that such inquiry is by a discharger and deals with matters of performance or compliance with this chapter for which enforcement activity relating to an alleged violation is the subject, receipt of a discharger's request shall stay all enforcement proceedings pending receipt of the aforesaid written reply. Appeal of the final judicial order entered pursuant to this chapter may be taken in accordance with applicable local law.

924.99 PENALTY.

(a) Civil Penalties. Any discharger who violates an order of the City or fails to comply with any provision of this chapter shall be subject to the imposition of a civil penalty. The City may assess these penalties in accordance with the tier system below. Such civil penalties shall be determined by the City based on the severity of the violation and the number of times the discharger was in violation for the same limit.

The tier system is as follows:

Tier 1	One thousand dollars ($1,000) per violation; each day constitutes a separate violation.
Tier 2	Five thousand dollars ($5,000) per violation; each day constitutes a separate violation
Tier 3	Ten thousand dollars ($10,000) per violation; each day constitutes a separate violation

(b) Criminal Penalties. A discharger's willful or negligent violation of this chapter will be subject to criminal prosecution when the City of Warren has evidence of noncompliance which shows criminal intent, and such discharger shall be punished by a fine of not more than one thousand dollars ($1,000) or by imprisonment for not more than

six months, or by both. Each day in which any such violation continues shall constitute a separate offense.

(c) Falsifying Information. Any person who knowingly makes false statements, representations or certifications in any application, record, report, plan or other document filed or required to be maintained pursuant to this chapter, or wastewater contribution permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this chapter, shall be punished by a fine of not more than one thousand dollars ($1,000) or by imprisonment for not more than six months, or by both.

(d) Administrative Penalties. The City may assess penalties ranging in the amount of one hundred dollars ($100.00) to three hundred dollars ($300.00) per day upon any sewer user who fails to comply with the numerical value or administrative orders issued by the City or other regulatory agencies. Such administrative penalties shall be determined by the City based on the severity of the violation and the range of response (Tier) called for in the amended pretreatment program, enforcement response program.

The Tier structure called for in the enforcement response program administrative penalties shall be as follows:

Tier 1 One hundred dollars ($100.00) per violation; each day constitutes a separate violation.

Tier 2 Two hundred dollars ($200.00) per day violation; each day constitutes a separate violation.

Tier 3 Three hundred dollars ($300.00) per day violation; each day constitutes a separate violation.

Note: In addition to the administrative penalties stated herein, surcharges may be imposed upon violating dischargers. As stated in Section 925.03(d), such surcharges are intended to recover the additional costs associated with treating extra strength discharges and are not penalties.

(NEW)
(Proposed)

924.01 PURPOSE AND POLICY.

This chapter sets forth uniform requirements for dischargers into the City sewage collection and treatment systems, and enables the City to protect public health and welfare in conformity with all applicable local, state and federal laws including the Clean Water Act (33 U.S.C. 1251 et seq) and the General Pretreatment Regulations (40 CFR Part 403)..

The objectives of this chapter are:

(a) To prevent the introduction of pollutants into the sewage treatment plant which will interfere with the normal operation of the system or contaminate the resulting municipal sludge;

(b) To prevent the introduction of pollutants into the sewage treatment plant which do not receive adequate treatment, and which will pass through the system into receiving waters or the atmosphere or otherwise be incompatible with the system;

(c) To improve the opportunity to recycle and reclaim wastewater and sludge from the system;

(d) To protect both Publicly Owned Treatment Works personnel who may be affected by wastewater and sludge in the course of their employment and the general public;

(e) To provide for fees for excess strength of wastewater discharged to the POTW;

(f) To enable the Warren Water Pollution Control facility to comply with its NPDES Permit conditions, sludge use and disposal requirements and any other Federal or State laws to which the facility is subject.

This chapter shall apply to all industrial and/or any significant users of the Warren WPC. The ordinance authorizes the issuance of wastewater discharge permits; authorizes monitoring, compliance and enforcement activities; establishes administrative review and enforcement procedures, requires industrial user reporting, and provides for fees for excess strength of waste discharged to the POTW.

(Ord. 10235/91. Passed 3-27-91.)

924.02 DEFINITIONS.

As used in this chapter, the following words and phrases shall have the following meanings:

(1) "Act" means the Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500, and any amendments thereto; as well as any guidelines, limitations and standards promulgated by the U.S. Environmental Protection Agency pursuant to the Act.

(2) "Approval Authority" means the State of Ohio Environmental Protection Agency

(3) "Authorized or Duly Authorized Representative of the User"

(1) If the User is a corporation:

(a) The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or

(b) The manager of one or more manufacturing, production, or operation facilities, provided the manager:

(i) Is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures, to assure long-term environmental compliance with environmental laws and regulations;

(ii) Can ensure that the necessary systems are established or that the necessary actions are taken to gather complete and accurate information for control mechanism requirements; and

(iii)Is assigned or delegated the authority to sign documents in accordance with corporate procedures.

(2) A general partner or proprietor if the industrial user submitting the report is a partnership or sole proprietorship, respectively.

(3) A member or manager if the industrial user submitting the report is a limited liability company;

(4) A duly authorized representative of the individual designated in paragraph (c)(1), (c)(2) or (c)(3) of this rule if:

(a) The authorization is made in writing by the individual described in paragraph (c)(1), (c)(2) or (c)(3) of this rule;

(b) The authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the industrial discharge originates, such as the position of plant manager, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and

(c) The written authorization is submitted to the control authority.

(5) If an authorization under paragraph (c)(4) of this rule is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of paragraph (c)(4) of this rule shall be submitted to the control authority prior to or together with any reports to be signed by an authorized representative.

(4) "Best Management Practices or BMPs" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in OAC 3745-3-04. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

(5) "Biochemical oxygen demand" (BOD) means the quantity of oxygen utilized in the biochemical oxidation of organic matter expressed in parts per million by weight under standard laboratory conditions for five days at a temperature of twenty degrees Centigrade. The laboratory determinations shall be made in accordance with procedures set forth in "Standard Methods" (See subsection (33)).

(5) "Bypass" means the intentional diversion of wastes from any portion of a treatment or pretreatment facility.

(6) "Categorical Industrial User" means an Industrial User subject to a categorical Pretreatment Standard or categorical Standard.

(7) "CFR" means the Code of Federal Regulations.

(8) "Chemical oxygen demand" (COD) means the quantity of oxygen utilized in the chemical oxidation of organic matter expressed in parts per million by weight, in accordance with procedures set forth in "Standard Methods" (See subsection (33)).

(9) "City" means the City of Warren, Ohio.

(10) "Composite Sample" means a sample that is collected over time, formed either by continuous sampling or by mixing discrete samples. The sample may be composited either as a time composite sample, composed of discrete sample aliquots collected in one container at constant time intervals providing representative samples irrespective of stream flow; or as a flow proportional composite sample, collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increases while maintaining a constant time interval between the aliquots

(11) "Control Authority" means The City.

(12) "Cooling Water" means:

(1) Uncontaminated or Non-Contact Cooling Water: Water used for cooling purposes only which has no direct contact with any raw material, intermediate or final product and which does not contain a level of contaminants detectably higher than that of the intake water.

(2) Contaminated or Contact Cooling Water: Water used for cooling purposes only which may become contaminated either through the use of water treatment chemicals used for corrosion inhibitors or biocides, or by direct contact with process materials and/or wastewater.

(13) "Daily maximum" means the maximum allowable discharge of a pollutant during a calendar day. Where daily maximum limitations are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where daily maximum limitations are expressed in terms of a concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day

(14) "Director" means the Director of the City's Water Pollution Control Department or his duly authorized representative.

(15) "Discharger" means any nonresidential user who discharges an effluent into the City sewage disposal works by means of pipes, conduits, pumping stations, force mains, constructed drainage ditches, surface water intercepting ditches and all constructed devices and appliances appurtenant thereto.

(16) "Domestic wastewater" means liquid wastes from the non-commercial preparation, cooking and handling of food or containing human excrement and similar matter from the sanitary conveniences of dwellings, commercial buildings, industrial facilities, and institutions

(17) "Environmental Protection Agency" (EPA) means the U.S. Environmental Protection Agency, or where appropriate "Environmental Protection Agency" may also be used as a designation for the Administrator or other duly authorized official of such Agency.

(18) "Grab sample" means an individual sample collected in less than 15 minutes, without regard for flow or time

(19) "Ground garbage" means the residue from the preparation, cooking and dispensing of food that has been shredded to such degree that all particles will be carried freely in suspension under the flow conditions normally prevailing in public sewers with no particle greater than one-half inch in any dimension.

(20) "Industrial user/discharger" means the source of indirect discharge to the POTW from any nondomestic source regulated under Section 307(b), (c) or (d) of the Federal Water Pollution Control Act.

(21) "Industrial waste" means any solid, liquid or gaseous substance discharged, permitted to flow or escaping from any industrial manufacturing, commercial or business establishment or process, or from the development, recovery or processing of any natural resource.

(22) "Interference" means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

A. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

B. Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of SWDA), the Clean Air Act, the Toxic Substances Control Act and the Marine Protection, Research and Sanctuaries Act.

(23) "Local Limit" means specific discharge limits developed and enforced by the Control Authority upon industrial or commercial facilities to implement the general and specific discharge prohibitions listed in 40 CFR 403.5(a)(1) and (b).

(24) "mg/L" means milligrams per liter

(25) "Mid-tier categorical user" is a significant industrial user subject to categorical pretreatment standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N that the control authority may determine is subject to a reduction in the user's reporting requirement and the control authority's monitoring and inspection requirements, upon satisfaction of the conditions following:

(1) The industrial user's total categorical wastewater flow does not exceed any of the following:

(a) 0.01 percent of the design dry weather hydraulic capacity of the POTW, or five thousand gallons per day, whichever is smaller, as measured by a continuous effluent flow monitoring device unless the industrial user discharges in batches;

(b) 0.01 percent of the design dry weather organic treatment capacity of the POTW; and

0.01 percent of the maximum allowable headworks loading for any pollutant regulated by the applicable categorical pretreatment standards for which approved local limits were developed by the POTW

(2) The industrial user has not been in significant noncompliance, as defined in this ordinance, for any time in the past 2 years;

(3) The industrial user does not have daily flow rates, production levels, or pollutant levels that vary so significantly that decreasing the reporting requirement would result in data that are not representative of conditions occurring during the reporting period

(26) "Monthly average" means the arithmetic mean of all daily discharges measured during a calendar month

(27) "New source" means any building, structure, facility or installation from which there is or may be a discharge of pollutants, the construction of which commenced after the publication of proposed pretreatment standards under Section 307(c) of the Act modified and defined for implementation in accordance with 40 CFR Section 403.3 paragraph (K) and Section 403.6 paragraph (B) provided that:

A. The building, structure, facility or installation is constructed at a site at which no other source is located; or

B. The building, structure, facility or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

C. The production of wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source will be considered.

(28) "National Categorical Pretreatment Standard" means any regulation containing pollutant discharge limits promulgated by the U.S. EPA in accordance with Section 307(b) and (c) of the Act (33 U.S.C. 1347) which applies to a specific category of industrial dischargers.

(29) "National Pollutant Discharge Elimination System" (NPDES) permit means the permit issued to the City pursuant to Section 402 of the Act (33 U.S.C. 1342).

(30) "Non-significant categorical industrial user" means an industrial user subject to 40 CFR chapter I, subchapter N that the control authority may determine is a non-significant categorical industrial user rather than a significant industrial user on a finding that the industrial user does not discharge more than 100 gallons per day (gpd) of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater) and the following conditions are met:

(1) The industrial user has consistently complied with all applicable categorical pretreatment standards and requirements;

(2) The user submits an annual certification statement required in paragraph (J) of OAC 3745-3-06 together with any additional information necessary to support the certification statement;

(3) The user never discharges any untreated concentrated wastewater

(31) "Oil and grease" means a group of substances with similar physical characteristics determined quantitatively on the basis of their common solubility in freon in accordance with procedures set forth in "Standard Methods" (See subsection (33)).

(32) "Parts per million" (ppm) means a weight-to-weight ratio; the parts-per-million value multiplied by the factor 8.345 is equivalent to pounds per million gallons of water. "Milligrams per liter" (mg/1) is a synonymous term.

(33) "Pass through" means the discharge of pollutants through the POTW into navigable waters in quantities or concentrations which are a cause of or significantly contribute to a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

(34) "Person" means any and all persons, natural or artificial, including any individual, firm, company, municipal or private corporation, association, society, institution, enterprise, governmental agency or other entity.

(35) "Pollutant" means the dredged spoil, solid waste, incinerator residue, wastewater, garbage, wastewater sludge, munition, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, commercial, domestic and agricultural waste discharged into water.

(36) "Pretreatment" means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into the City sewage treatment plant. The reduction or alteration can be obtained by physical, chemical or biological processes, or process changes by other means, except as prohibited by 40 CFR Section 403.6 (d).

(37) "Pretreatment requirement" means any substantive or procedural requirement related to pretreatment, other than a pretreatment standard imposed on an industrial users or POTW.

(38) "Pretreatment standards" means Prohibited discharge standards, Categorical Pretreatment Standards and Local Limits.

(39) "Publicly owned treatment works (POTW)" means a treatment works, as defined by section 212 of the Act, which is owned, leased or contracted to operate by a state or municipality. This definition includes any devices and/or systems used in the storage,

treatment, recycling and reclamation of sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances if they convey wastewater to a POTW treatment plant. The term also means the municipality which has jurisdiction over the discharges to and the discharges from such a treatment works.

(40) "Public sewer" means a sewer provided by or subject to the jurisdiction of the City. "Public sewer" also includes sewers within or outside the City boundaries that serve one or more persons and ultimately discharge into the City sewer system even though those sewers may not have been constructed with City funds.

(41) "pH" means the logarithm, base 10, of the reciprocal of the hydrogen ion concentration expressed in moles per liter. "pH" shall be determined in accordance with procedures set forth in "Standard Methods" (See subsection (33)).

(42) "Safety-Service Director" means the Safety-Service Director of the City or his duly authorized representative.

(43) "Sewage" means the water-carried human, animal and household wastes in a public or private drain, and may include groundwater infiltration, surface drainage and industrial wastes.

(44) "Sewage disposal works" means all facilities for collection, pumping, treating and disposing of sewage and industrial waste.

(45) "Sewage treatment plant" means an assemblage of devices, structures and equipment for treatment of sewage and industrial waste.

(46) "Sewer" means a pipe or conduit for conveying sewage or any other waste liquids, including storm, surface and groundwater drainage.

(47) "Shall" means a mandatory requirement; "may" is permissible.

(48) "Significant industrial user" (SIU) includes:

A. All categorical industrial users;

B. Any noncategorical industrial user which:

1. Discharges 25,000 gallons per day or more of process water ("process water" includes sanitary, noncontact cooling and boiler blowdown wastewater); or

2. Contributes a process wastewater which makes up five percent (5%) or more of the average dry weather hydraulic or organic (BOD, TSS, etc.) capacity of the treatment plant; or

3. Has a reasonable potential, in the opinion of the Control or Approval Authority, to adversely affect the POTW (inhibition, pass through, sludge contamination or endangerment of POTW workers), except: the City may, at any time, on its own initiative or in response to a petition received from an industrial user, determine that such user should not be considered a Significant Industrial User.

(49) "Significant noncompliance" (SNC) is a relative measure of industrial user noncompliance determined if the user's violations meet one or more of the following criteria:

A. Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent (66%) or more of all of the measurements taken during a six-month period exceed (by any magnitude) a numeric pretreatment standard or requirement, including instantaneous limits for the same pollutant or

parameter;

B. Technical review criteria (TRC) violations, defined here as those in which thirty-three percent (33%) or more of all of the measurements for each pollutant parameter taken during a six-month period equal or exceed the product of the numeric pretreatment standard or requirement, including instantaneous limits multiplied by the applicable TRC (TRC=1.4 for BOD, TSS, fats, oil and grease, and 1.2 for all other pollutants except pH);

C. Any other violation of a pretreatment standard or requirement as defined by OAC 3745-03-01 that the Control Authority determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of POTW personnel or the general public);

D. Any discharge of a pollutant that has caused imminent endangerment of human health, welfare or to the environment or has resulted in the POTW's exercise of emergency authority to halt or prevent such a discharge;

E. Failure to meet, within ninety days after the schedule date, a compliance schedule milestone contained in a wastewater discharge permit or enforcement order for starting construction, completing construction or attaining final compliance;

F. Failure to provide, within forty five days after the due date, required reports such a baseline monitoring reports, ninety-day compliance reports, periodic self-monitoring reports and reports on compliance with compliance schedules;

G. Failure to accurately report noncompliance;

H. Any other violation or group of violations which the Director determines will or has adversely affected the operation or implementation of the City's pretreatment program.

(50) "Sludge" means any solid or semisolid waste generated by a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility or any other waste having similar characteristics and effects as defined in standards issued under Sections 402 and 405 of the Act and in the applicable requirements under Sections 2001, 3004 and 4004 of the Solid Waste Disposal Act (PL 94-580).

(51) "Slug / Slugload / Slug Discharge" means any discharge of water, sewage or industrial waste which, in concentration of any given constituent or in quantity of flow, causes a violation of the prohibited discharge standards in Section 924.03 of this Ordinance. A Slug Discharge is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the POTW's regulations, Local Limits or Permit conditions..

(52) "Standard Industrial Classification (SIC) Manual" means the SIC Manual, 2972, Office of Management and Budget, as amended and supplemented.

(53) "Standard Methods" means the current edition of Standard Methods for the Examination of Water and Wastewater as published by the American Public Health Association, American Water Works Association and Water Environment Federation.

(54) "Surcharge" means the assessment, in addition to other applicable charges, which

is levied on those persons and/or industrial users whose wastewater is greater in strength than normal domestic sewage.

(55) "Suspended solids" (SS) means solids that either float on the surface of, or are in suspension or will settle in water, sewage or industrial waste, and which are removable by a laboratory filtration device. Quantitative determination of suspended solids shall be made in accordance with procedures set forth in "Standard Methods" (See subsection (33)).

(56) "Toxic pollutants" means any pollutant or combination of pollutants which is or can potentially be harmful to public health or the environment including those listed as toxic in regulations promulgated by the Administrator of the Environmental Protection Agency under the provisions of CWA 307(a) or other Acts.

(57) "Upset" means an exceptional incident in which a discharger unintentionally and temporarily is in a state of noncompliance with the standards set forth in this chapter due to factors beyond the reasonable control of the discharger, and excluding noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventive maintenance or careless or improper operation thereof.

(58) "Wastewater" means the liquid and water-carried or domestic wastes from dwellings, commercial buildings, industrial facilities and institutions together with any groundwater, surface water and stormwater that may be present, whether treated or untreated, which is contributed into or permitted to enter the City's sanitary sewer system.

(Ord. 10235/91. Passed 3-27-91.)

924.03 GENERAL DISCHARGE PROHIBITIONS.

(a) No user shall introduce or cause to be introduced into the POTW any pollutant or wastewater which causes Pass Through or Interference. These general prohibitions apply to all Users of the POTW whether or not they are subject to categorical Pretreatment Standards or any other National, State or local Pretreatment Standard or Requirement.

(b) No person shall discharge, or cause to be discharged, any of the following described water or wastes to any public sewer:

(a) Pollutants which create a fire or explosion hazard in the POTW including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or sixty degrees Centigrade using the test method specified in 40 CFR 261.21.

(b) No person shall discharge, or cause to be discharged, any of the following described water or wastes to any public sewer: pollutants which result in the presence of toxic gases, vapors or fumes within the POTW in a quantity that may cause acute worker health and safety problems.

(c) Any solids, greases, slurries or viscous material of such character or in such quantity that may cause an obstruction to the flow in the sewer or otherwise interfere with the proper functioning of the sewage disposal works.

(d) Any toxic substances, chemical elements or compounds in quantities sufficient to impair the operation or efficiency of the sewage treatment plant or that will pass through the sewage treatment plant and cause the effluent thereof to exceed NPDES permit limits, or otherwise interfere with the effective and final disposal of sludge removed or separated by the sewage treatment plant. This includes but is not necessarily limited to the substances and respective limitations listed in Section 924.04.

(e) Any liquids having a pH lower than 6.0 or higher than 9.0, or having any corrosive property capable of causing damage or hazard to structures, equipment or personnel of the sewage disposal works.

(f) Any wastewater having a temperature which will inhibit biological activity at the sewage treatment plant resulting in interference; but in no case, wastewater with a temperature at the introduction into the treatment plant which exceeds forty degrees Centigrade (104 degrees Fahrenheit).

(g) Any slug release, which will mean any pollutant, including oxygen-demanding pollutants (BOD, etc.) released in such volume or strength as to cause interference to the sewage treatment plant.

(h) Any wastewater containing any radioactive wastes or isotopes of such halflife or concentration which exceeds limits established by the City in compliance with applicable state or federal regulations.

(i) Any substance with objectionable color not removed in the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions.

(j) Discharges of petroleum oil, nonbiodegradable cutting oil or products of mineral oil origin are prohibited in amounts that can pass through or cause interference.

(k) Noxious or malodorous solids, liquids or gases, which, either singly or by interaction with other wastes, are capable of creating a public nuisance or hazard to life, or are or may be sufficient to prevent entry into a sewer for its maintenance and repair

(l) Garbage that has not been ground or comminuted to such a degree that all

particles will be carried freely in suspension under flow conditions normally prevailing in the public sewers, with no particle greater than one-half (1/2) inch in any dimension

(m) Any unpolluted water including, but not limited to, storm water, surface water, roof runoff, Noncontact cooling water, which will increase the hydraulic load on the POTW unless specifically authorized by the City.

(c) Nothing in this section shall be construed as preventing any special agreement or arrangement between the City and any user of the POTW whereby wastewater of unusual strength or character is discharged into the system. No agreement shall be made which violates any state or federal standards or requirements including categorical pretreatment standards

(Ord. 10235/91. Passed 3-27-91.)

924.04 SPECIFIC POLLUTANT LIMITATIONS.

(a) Local Limits The approved pretreatment program for the City of Warren sets wastewater discharge limitations for arsenic, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, thallium and zinc for significant industrial users discharging to the City sewer system. Such limits shall be specified in the significant industrial users' waste discharge permit to be issued by the City. All other users of the POTW may not discharge above generally accepted domestic levels without receiving a wastewater discharge permit from the City. Discharge permits shall impose maximum discharge concentrations limits or mass based limits where appropriate. Local requirements and limitations on discharges to the POTW shall be met by all dischargers subject to those standards in any instance in which they are more stringent than federal or state requirements and limitations. DirectorDirector

(b) Compatible Pollutant Limitation. No wastewater shall be discharged which exceeds the maximum daily concentration established for the following compatible pollutants without permission from the DirectorDirector and payment of the appropriate surcharge:

Pollutant	Maximum Daily Concentration (ppm)
BOD	200
COD	600
Ammonia nitrogen	35
Oil and grease (Freon soluble)	100
Phosphate (as P)	15
Solids (total suspended)	250
Solids (total dissolved)	1500
pH	Within the range of 6 to 9 at all times

(Ord. 10740/94. Passed 12-14-94.)

924.05 DILUTION.

No discharger shall increase the use of potable or process water for the purpose of diluting a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the standards set forth in this chapter.
(Ord. 10235/91. Passed 3-27-91.)

924.06 NATIONAL CATEGORICAL PRETREATMENT STANDARDS.

National Categorical Pretreatment Standards as promulgated by the U.S. Environmental Protection Agency (EPA) pursuant to the Act shall be met by all dischargers of the regulated industrial categories. In any instances in which the categorical pretreatment standards are more stringent than limitations established in this chapter, the categorical pretreatment standards shall apply.

When the limits in a categorical pretreatment standard are expressed only in terms of mass of pollutant per unit of production, the City may convert the limits to equivalent limitations expressed either as mass or pollutant discharged per day of effluent concentration for purposes of calculating effluent limitations applicable to individual industrial users per 40 CFR 403.6 (C) (2).

An application for modification of the National Categorical Pretreatment Standards prepared in accordance with 40 CFR 403.7 may be considered for submittal to the Regional Administrator by the City, when the sewage treatment plant achieves consistent removal of the pollutants. "Consistent removal" means the reduction in the amount of a pollutant or alteration of the nature of the pollutant by the sewage treatment plant to a less toxic or harmless state in the effluent provided that the plant meets the NPDES permit limits established for that pollutant and the sludge meets all applicable requirements for the preferred method of disposal.
(Ord. 10235/91. Passed 3-27-91.)

924.07 RIGHT OF REVISION.

The City reserves the right to amend this chapter to provide for more or less stringent limitations or requirements on discharges to the sewage treatment plant where deemed necessary to comply with the objectives set forth in Section 924.01.
(Ord. 10235/91. Passed 3-27-91.)

924.08 ACCIDENTAL DISCHARGES.

Dischargers shall immediately notify treatment plant personnel upon the accidental discharge of wastes in violation of this chapter, including slugloads and other discharges which could cause problems to the POTW, treatment processes and the receiving waters. The notification shall include location of discharge, date and time thereof, type of waste, concentration and volume and corrective actions.

This notification shall be followed, within fifteen days of the date of occurrence, by a detailed

written statement describing the causes of the accidental discharge and the measures being taken to prevent future occurrence.

Such notification shall not relieve dischargers of liability for any fines provided for in Section 924.99, or for any expense, loss or damage to the sewer system, treatment plant or treatment process, or for any fines imposed on the City on account thereof.

In order that employees of dischargers be informed of City requirements, dischargers shall make available to their employees copies of this chapter together with such other wastewater information and notices which may be furnished by the City from time to time directed toward more effective water pollution control. A notice shall be furnished and permanently posted on the discharger's bulletin board advising employees whom to call in case of an accidental discharge in violation of this chapter.
(Ord. 10235/91. Passed 3-27-91.)

924.09 ACCIDENTAL DISCHARGE PREVENTIVE MEASURES.

(a) Each discharger shall provide protection from accidental discharge of prohibited or regulated materials or substances established by this chapter. Any direct or indirect connection or entry point for persistent or deleterious wastes to the discharger's plumbing or drainage system shall be eliminated. Where such action is impractical or unreasonable, the discharger shall appropriately label such entry points to warn against discharge of such wastes in violation of this chapter.

(b) Where necessary, facilities to prevent accidental discharge of prohibited material shall be provided and maintained at the discharger's expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the Director for review and shall be approved by the Director before construction of the facility. Review and approval of such plans and operating procedures shall not relieve the discharger from the responsibility to modify this facility as necessary to meet the requirements of this chapter.

(c) The Directorr shall evaluate whether each industrial user needs a written accidental discharge/slug discharge control plan or other action to control Slug Discharges at least once per control mechanism cycle. The Director may require any User to develop, submit for approval, and implement such a plan or take such other action that may be necessary to control Slug Discharges. An accidental discharge/slug discharge control plan shall address, at a minimum, the following:

(1) Description of discharge practices, including non-routine batch discharges;

(2) Description of stored chemicals;

(3) Procedures for immediately notifying the Director and the POTW of any accidental or Slug Discharge, as required by this ordinance; and

(4) Procedures to prevent adverse impact from any accidental or Slug Discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.

(Ord. 10235/91. Passed 3-27-91.)

924.10 OPERATING UPSETS.

Any discharger which experiences an upset in operations which places the discharger in a temporary state of noncompliance with this chapter shall inform the Director thereof within twenty-four hours of first awareness of the commencement of the upset. Where such information is given orally, a written follow-up report thereof shall be filed by the discharger with the Director within five days. The report shall specify:

(a) Description of the upset, the cause thereof and the upset's impact on a discharger's compliance status.

(b) Duration of noncompliance, including exact dates and times of noncompliance, and if the noncompliance continues, the time by which compliance is reasonably expected to occur.

(c) All steps taken or to be taken to reduce, eliminate and prevent recurrence of such upset or other conditions of noncompliance.

A documented and verified bona-fide operating upset shall be an affirmative defense to any enforcement action brought by the City against a discharger for any noncompliance with the chapter which arises out of violations alleged to have occurred during the period of the upset.
(Ord. 10235/91. Passed 3-27-91.)

924.11 CONTROL OF ADMISSIBLE WASTES.

(a) No person shall discharge sewage or industrial wastes to any sewer within the jurisdiction of the City and/or to the sewage treatment plant without having first complied with the terms of this chapter, including any subsequent compliance schedules that may be required should additional pretreatment and/or operation and maintenance be necessary. If wastewaters containing any substances described in §924.03 and 924.04 of this chapter are discharged or proposed to be discharged into the sewer system of the City or to any sewer system tributary thereto, the City may:

(1) Prohibit the discharge of such wastewater;

(2) Require the person or industrial discharger to make modifications that will reduce or eliminate the discharge of such substance in conformity with this chapter;

(3) Require pretreatment, including storage facilities, or flow equalization necessary to reduce or eliminate the objectionable characteristics or substances to achieve compliance with all Categorical Pretreatment Standards, Local Limits and prohibitions set out in the ordinance;

(4) Require the person making, causing, or allowing the discharge to pay any additional cost or expense incurred for handling and treating excess loads imposed on the POTW;

(5) Take any other remedial action as may be deemed desirable or necessary to achieve the purpose of this chapter;

(6) Require the person responsible for the discharge or proposed discharge to apply for and obtain a waste discharge permit authorizing and limiting the discharge for specific pollutants.

(b) Within ninety days after passage of this chapter, existing dischargers of industrial wastes to a public sewer who have not previously done so shall prepare and file with the City a report that shall include pertinent data relating to the quantity and characteristics of the wastes discharged to the sewage disposal works. Should a discharger desire to expand or change his operations which will increase or change the amount or nature of pollutants in the discharge at any time, or after filing such report, he shall be responsible for preparing and filing another

report which reflects these changes at least 30 days prior to changing his operations.

(c) Similarly, each person moving into an existing location connected to a public sewer or each person desiring to make a new connection to a public sewer for the purpose of discharging industrial wastes shall prepare and file with the City a report that shall include actual or predicted data relating to the quantity and characteristics of the waste to be discharged. Such report shall be filed prior to moving into an existing location or prior to making any connection to the public sewer.

(d) Such report shall be made on written forms provided by the City and shall include:

(1) Disclosure of name, address and location of the discharger, including the name of the operator and owner;

(2) Disclosure of Standard Industrial Classification (SIC) number according to the Standard Industrial Classification Manual, Bureau of the Budget, 1972, as amended and any other environmental control permits held by or for the facility;

(3) Description of Operations:

Disclosure of each product produced by type, amount, process and rate of production

Disclosure of site plans, floor plans, mechanical and plumbing plans and details to show all sewers, sewer connections, inspection manholes, sampling chambers and appurtenances by size, location and elevation

Disclosure of the type and amount of raw materials utilized

Description of activities, facilities and plant processes on the premises including all material which are or may be discharged to the sewage disposal works

Disclosure of time and duration of discharges

(4) Measurement of Pollutants: Disclosure of wastewater constituents and characteristics including but not limited to those mentioned in this chapter;

The categorical Pretreatment Standards applicable to each regulated process and any new categorically regulated processes for Existing Sources.

The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the Standard or by [the Director], of regulated pollutants in the discharge from each regulated process.

Instantaneous, Daily Maximum, and long-term average concentrations, or mass, where required, shall be reported.

The sample shall be representative of daily operations and shall be analyzed in accordance with procedures contained in 40 CFR Part 136 and amendments thereto.

Where the Standard requires compliance with a BMP or pollution prevention alternative, the User shall submit documentation as required by the Director or the applicable Standards to determine compliance with the Standard.

(5) The location for monitoring all wastes covered by the permit.Disclosure of average daily and maximum daily flow rates, in gallons per day, including seasonal variations. All flows shall be measured unless other verifiable techniques are approved by the Director due to cost or nonfeasibility;

(6) Disclosure of the nature and concentration of any pollutants or materials prohibited by this chapter in the discharge, together with a statement regarding whether or not compliance is being achieved with this chapter on a consistent basis and if not, whether additional operation and maintenance activities and/or additional

pretreatment is required for the discharger to comply with this chapter;

(7) Where additional pretreatment and/or operation and maintenance (O and M) activities will be required to comply with this chapter, the discharger shall provide a declaration of the shortest schedule by which the discharger will provide such additional pretreatment or O and M according to the conditions in Section 924;

(8) Signatory requirements: This report shall include the following certification statement:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Additionally, this report shall be signed by an Authorized Representative of the User as defined by 924.02.

The Director shall evaluate the complete report and data furnished by the discharger and may require additional information. Within thirty days after full evaluation and acceptance of the data furnished, the Director shall notify the discharger of the City's acceptance thereof.

Should the industrial user fall under a categorical pretreatment standard, the discharger shall be classified as an existing or new source. If the facility is classified as a new source, they shall install and start up pretreatment technology prior to discharge and achieve compliance with the shortest time feasible, not to exceed ninety days after commencement of discharge.

(e) Where pretreatment or flow equalization prior to discharge into the POTW is required, plans, specifications, and other pertinent data or information relating to such pretreatment or flow-control facilities shall first be submitted to the City for review and approval. Such approval shall not exempt the discharger from compliance with any other applicable code, ordinance, rule, regulation or order of any governmental authority. Any subsequent alterations or additions to such pretreatment or flow-control facilities shall not be made without due notice to and prior approval of the city.

(f) If pretreatment or control of waste flows is required, such facilities shall be maintained in good working order and operated as efficiently as possible by the owner or operator at his or her own cost and expense, subject to the requirements of these rules and regulations and all other applicable codes, ordinances and laws.

(g) Whenever it shall be necessary, an authorized representative of the city, upon presentation of identification, may enter upon any property or premises at reasonable times for the purpose of copying any records required to be kept under the provisions of this chapter, inspecting any processes or equipment where wastewater is generated and discharged to the POTW, and sampling any discharge or wastewater to the POTW

(h) If, for any reason, a person does not comply with or will not be able to comply with any prohibition or limitation in this chapter, the person responsible for such discharge shall immediately notify the Director so that corrective action may be taken to protect the POTW treatment plant. In addition, a written report addressed to the Director detailing the exact date, time, and cause of the accidental discharge, and the duration, quantity and characteristics of the discharge, shall be filed by the responsible person within five (5) days.

(i) All industrial users are prohibited from bypassing any pretreatment facility. Pretreatment facilities are required to be operated at all times. However, if an industrial user knows in advance of the need for a bypass, it must give prior notice to the Director and POTW, at least ten days before the date on which the bypass is to occur. If the bypass is not anticipated, the industrial user must notify the Director and POTW orally within 24 hours of becoming aware of the bypass. This 24-hour notice must be followed within five (5) days with a written description of the bypass, its cause, duration (or, if it has not been corrected, how long it is expected to continue), and what has been done to rectify the situation.

(Ord. 10235/91. Passed 3-27-91.)

924.12 STANDARDS MODIFICATION.

The City reserves the right to amend this chapter and the terms and conditions hereof in order to assure compliance with applicable laws and regulations. Within nine months of the promulgation of a National Categorical Pretreatment Standard, this chapter shall be amended to require compliance by dischargers with such standards within the time frame prescribed by such standards. All National Categorical Pretreatment Standards adopted after the promulgation of this chapter shall be adopted by the City as part of this chapter. Any discharger subject to a National Categorical Pretreatment Standard shall submit to the City within 180 days after the promulgation of an applicable National Categorical Pretreatment Standard, the additional information required by Section 924.11. The discharger shall be informed of any proposed changes in the chapter at least thirty days prior to the effective date of the change. Any changes or new conditions in the chapter shall include a reasonable time schedule for compliance.

(Ord. 10235/91. Passed 3-27-91.)

924.13INDUSTRIAL DISCHARGE PERMIT SYSTEM

(A) Wastewater Discharge Permits: All significant industrial users proposing to connect to or discharge into any part of the POTW must first obtain a discharge permit. All existing significant industrial users connected to or discharging into any part of the POTW must obtain a wastewater discharge permit and pay any applicable fees within ninety (90) days from and after the effective date of this chapter. Incomplete or inaccurate applications will not be processed and will be returned to the User for revision. The Director may require Users to submit all or some of the following information as part of a permit application:

(1) Identifying Information.
   a. The name and address of the facility, including the name of the operator and owner.
   b. Contact information, description of activities, facilities, and plant production processes on the premises;

(2) Environmental Permits. A list of any environmental control permits held by or for the facility.

(3) Description of Operations.
   a. A brief description of the nature, average rate of production (including each product produced by type, amount, processes, and rate of production), and standard industrial classifications of the operation(s) carried out by such User. This description should include a schematic process diagram, which indicates points of discharge to the POTW from the regulated processes.
   b. Types of wastes generated, and a list of all raw materials and chemicals used or stored at the facility which are, or could accidentally or intentionally be, discharged to the POTW;
   c. Number and type of employees, hours of operation, and proposed or actual hours of operation;
   d. Type and amount of raw materials processed (average and maximum per day);
   e. Site plans, floor plans, mechanical and plumbing plans, and details to show all sewers, floor drains, and appurtenances by size, location, and elevation, and all points of discharge;

(4) Time and duration of discharges;

(5) The location for monitoring all wastes covered by the permit;

(6) Flow Measurement. Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow use of the combined wastestream formula.

(7) Measurement of Pollutants.
   a. The categorical Pretreatment Standards applicable to each regulated process and any new categorically regulated processes for Existing Sources.
   b. The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the Standard or by [the Director], of regulated pollutants in the discharge from each regulated process.
   c. Instantaneous, Daily Maximum, and long-term average concentrations, or mass, where required, shall be reported.
   d. The sample shall be representative of daily operations and shall be analyzed in accordance with procedures contained in 40 CFR Part 136 and amendments thereto. Where the Standard requires compliance with a BMP or pollution prevention alternative, the User shall submit documentation as required by the Director or the applicable Standards to determine compliance with the Standard.
   e. Sampling must be performed in accordance with procedures set out in Section 921.08 of this ordinance.

(8) Any requests for a monitoring waiver (or a renewal of an approved monitoring waiver) for a pollutant neither present nor expected to be present in the discharge

based on Section 921.08.

(9) Any other information as may be deemed necessary by Director to evaluate the permit application.

(B) After evaluation and acceptance of the data furnished, the Director may issue a wastewater discharge permit subject to terms and conditions provided herein.

(C) Permit Conditions: Wastewater discharge permits shall be expressly subject to all provisions of this chapter and all other state and federal laws and regulations, other local ordinances, and user charges and fees established by the City. Wastewater discharge permits shall be uniformly enforced in accordance with this chapter, and applicable state and federal requirements, laws and regulations. Permit conditions may include, but not be limited to the following:

(1) Limits on rate and time of discharge or requirements for flow equalization.
(2) Requirements for installations of inspection and sampling facilities, and specifications for monitoring programs.
(3) Requirements for maintaining and submitting technical reports and plant records relating to wastewater discharges.
(4) Limits on specific pollutants.
(5) Compliance schedules.
(6) Other conditions to comply with this chapter and other applicable state and federal laws, rules and regulations.

(D) Wastewater Discharge Permit Contents: An individual wastewater discharge permit shall include such conditions as are deemed reasonably necessary by the Director to prevent Pass Through or Interference, protect the quality of the water body receiving the treatment plant's effluent, protect worker health and safety, facilitate sludge management and disposal, and protect against damage to the POTW.
Individual wastewater discharge permits must contain:

(1) A statement that indicates the wastewater discharge permit issuance date, expiration date and effective date;
(2) A statement that the wastewater discharge permit is nontransferable without prior notification to the City in accordance with this ordinance, and provisions for furnishing the new owner or operator with a copy of the existing wastewater discharge permit;
(3) Effluent limits, including Best Management Practices, based on applicable Pretreatment Standards;
(4) Self monitoring, sampling, reporting, notification, and record-keeping requirements. These requirements shall include an identification of pollutants (or best management practice) to be monitored, sampling location, sampling frequency, and sample type based on Federal, State, and local law.
(5) The process for seeking a waiver from monitoring for a pollutant neither present nor expected to be present in the Discharge in accordance with Section 921.08
(6) A statement of applicable civil and criminal penalties for violation of Pretreatment Standards and Requirements, and any applicable compliance schedule. Such schedule may not extend the time for compliance beyond that required by applicable Federal, State, or local law.
(7) Requirements to control Slug Discharge, if determined by the Director to be

necessary.

(8) Any grant of the monitoring waiver by the Director must be included as a condition in the User's permit.

(E) Duration of permits: Permits shall be issued for a specified time period, not to exceed five (5) years. A permit may be issued for a period of less than one year, and may be stated to expire on a specific date. The terms and conditions of the permit may be subject to modification and change by the Director during the life of the permit, as limitations or requirements are modified and changed. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

(F) Transfer of a Permit: Permits may be reassigned or transferred to a new owner and/or operator with prior approval of the Director. The permittee must give at least thirty (30 days advance written notice to the Director. The notice must include a written certification by the new owner/operator which states that the new owner has no immediate intent to change the facility's operations and processes; identifies the specific date on which the transfer is to occur; and acknowledges full responsibility for complying with the existing permit.

(G) Termination of Permits: Wastewater discharge permits may be terminated for the following reasons:

(1) Falsifying self-monitoring reports.
(2) Tampering with monitoring equipment.
(3) Refusing to allow City personnel, or its authorized representative, timely access to the facility premises and records.
(4) Failure to meet effluent limitations and/or failure to comply with all pretreatment requirements.
(5) Failure to pay fines.
(6) Failure to pay sewer charges.
(7) Failure to meet compliance schedules.

The Director may issue orders to any industrial user to insure compliance with any requirements under this chapter including applicable National Categorical Pretreatment Standards, other discharge limits and reporting requirements. Such orders shall be in the form of a directive signed by the Director and may include but shall not be limited to a list of pollutants to be monitored, location of sampling points, type of sample, frequency of sampling and compliance schedules to meet discharge limits

(a) Compliance Schedules. When in the opinion of the Director, it becomes necessary for industrial users to install technology or provide additional operation and maintenance (O and M) to meet any condition of this chapter or applicable administrative order, the Director shall require the development of the shortest schedule by which the industrial user will provide this additional technology or O and M.

(b) Periodic Compliance Reports. All industrial users shall submit periodic compliance reports indicating the nature and concentration of pollutants in their discharge. The frequency of reporting shall be as prescribed in the industrial user's administrative orders.

Results of sampling above the minimum required shall also be reported if analyses were conducted according to the methodology in Section 924.16. Where the results

of self-monitoring indicates a violation of pretreatment standards, the industrial user shall notify the Director within twenty-four hours of becoming aware of the violation. The user shall also resample for the pollutant(s) in violation and report the results of resampling within thirty days of becoming aware of the initial violation.

These parts shall include the certification statement and shall be signed by an authorized representative of the discharger as defined in Section 924.8

(Ord. 10235/91. Passed 3-27-91.)

924.14 MONITORING AND REPORTING REQUIREMENTS

(A) Discharge reports:

(1) Baseline monitoring report: within 180 days after the effective date of a categorical pretreatment standard, existing industrial users subject to such categorical pretreatment standards and currently discharging to or scheduled to discharge to the POTW shall be required to submit to the City a baseline monitoring report (BMR), which contains the information listed below.

New sources and sources that become industrial users after promulgation of an applicable categorical standard, shall be required to submit to the City a baseline monitoring report (BMR), which contains the information listed below at least 90 days prior to commencement of discharges. A New Source shall report the method of pretreatment it intends to use to meet applicable categorical Standards. A New Source also shall give estimates of its anticipated flow and quantity of pollutants to be discharged.

(a) Measurement of pollutants.

i. The User shall provide the information required in Section 924.13 A (7) (a) through (d).

ii. The User shall take a minimum of one representative sample to compile that data necessary to comply with the requirements of this paragraph.

iii. Samples should be taken immediately downstream from pretreatment facilities if such exist or immediately downstream from the regulated process if no pretreatment exists. If other wastewaters are mixed with the regulated wastewater prior to pretreatment the User should measure the flows and concentrations necessary to allow use of the combined wastestream formula in 40 CFR 403.6(e) to evaluate compliance with the Pretreatment Standards. Where an alternate concentration or mass limit has been calculated in accordance with 40 CFR 403.6(e), this adjusted limit along with supporting data shall be submitted to the Control Authority;

iv. The Director may allow the submission of a baseline report which utilizes only historical data so long as the data provides information sufficient to determine the need for industrial pretreatment measures;

v. The baseline report shall indicate the time, date and place of sampling and methods of analysis, and shall certify that such sampling and analysis is representative of normal work cycles and expected pollutant Discharges to the POTW.

(c) Compliance Certification. A statement, reviewed by the User's Authorizèd Representative as defined in Section 924.02 and certified by a qualified professional, indicating whether Pretreatment Standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the Pretreatment Standards and Requirements.

(d) Compliance Schedule. If additional pretreatment and/or O&M will be required to meet the Pretreatment Standards, the shortest schedule by which the User will provide such additional pretreatment and/or O&M must be provided. The completion date in this schedule shall not be later than the compliance date established for the applicable Pretreatment Standard.

(e) Signature and Report Certification. All baseline monitoring reports must be certified in accordance with Section 924.11 d(8) of this ordinance and signed by an Authorized Representative as defined in Section 924.02.

(2) Ninety Day Compliance Report: Within 90 days following the date for final compliance with applicable categorical pretreatment standards, or in the case of a new source, following commencement of the introduction of wastewater into the POTW, any industrial user subject to the pretreatment standards and requirements shall submit to the Director, a report containing the information described in 924.13A(6) and 924.14A(1)(a) of this ordinance. All compliance reports must be certified in accordance with 921.11d(8) and signed by an Authorized Representative as defined in Section 924.02 of this ordinance.

(3) Periodic Compliance Reports: Any user subject to a pretreatment standard or requirement shall periodically submit to the City a report indicating the nature, concentration of pollutants in the discharge which are limited by pretreatment standards or requirements and the estimated average and maximum daily flows for the reporting period. In cases where the Pretreatment Standard requires compliance with a Best Management Practice (BMP), the user must submit documentation required by the Director or the Pretreatment Standard necessary to determine the compliance status of the User. Such reports shall be submitted according to the frequency prescribed in the industrial user's wastewater discharge permit.

(a) The City may authorize an Industrial User subject to a categorical Pretreatment Standard to forego sampling of a pollutant regulated by a categorical Pretreatment Standard if the Industrial User has demonstrated through sampling and other technical factors that the pollutant is neither present nor expected to be present in the Discharge, or is present only at background levels from intake water and without any increase in the pollutant

due to activities of the Industrial User. [40 CFR 403.12(e)(2)] This authorization is subject to the following conditions:

i. The waiver may be authorized where a pollutant is determined to be present solely due to sanitary wastewater discharged from the facility provided that the sanitary wastewater is not regulated by an applicable categorical Standard and otherwise includes no process wastewater.
ii. The monitoring waiver is valid only for the duration of the effective period of the individual wastewater discharge permit, but in no case longer than 5 years. The User must submit a new request for the waiver before the waiver can be granted for each subsequent individual wastewater discharge permit.
iii. In making a demonstration that a pollutant is not present, the Industrial User must provide data from at least one sampling of the facility's process wastewater prior to any treatment present at the facility that is representative of all wastewater from all processes.
iv. The request for a monitoring waiver must be signed in accordance with 924.14A(8).
v. Non-detectable sample results may be used only as a demonstration that a pollutant is not present if the EPA approved method from 40 CFR Part 136 with the lowest minimum detection level for that pollutant was used in the analysis.
vi. Any grant of the monitoring waiver by the Director must be included as a condition in the User's permit. The reasons supporting the waiver and any information submitted by the User in its request for the waiver must be maintained by the Director for 3 years after expiration of the waiver.
vii. Upon approval of the monitoring waiver and revision of the User's permit by the Director, the Industrial User must certify on each report with the statement 924.14A(9) below, that there has been no increase in the pollutant in its wastestream due to activities of the Industrial User.
viii. In the event that a waived pollutant is found to be present or is expected to be present because of changes that occur in the User's operations, the User must immediately: Comply with the monitoring requirements, or other more frequent monitoring requirements imposed by the Director, and notify the Director.
ix. This provision does not supersede certification processes and requirements established in categorical Pretreatment Standards, except as otherwise specified in the categorical Pretreatment Standard.

(4) If sampling performed by an industrial user indicates a violation, the user shall notify the Director within 24 hours of becoming aware of the violation. The industrial user shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Director within 30 days after becoming aware of the violation. The industrial user is not required to resample if:

a. The Director, or its authorized representative, samples the wastewater discharge of the industrial user at least once per month, or

b. The Director, or its authorized representative, performs sampling at the industrial user between the time when the user performs its initial sampling and the time when the user receives the results of this sampling.

(5) The reports required by this section of this chapter shall be based upon data obtained through appropriate sampling and analysis performed during the period covered by the report, which data is representative of conditions occurring during the reporting period.

(6) If an industrial user monitors any pollutant more frequently than required by the City, the results of this monitoring shall be included in the periodic discharge monitoring report.

(7) All sampling and analyses shall be performed in accordance with procedures contained in 40 CFR Part 136 and amendments thereto.

(8) The reports required by this section shall be signed by:

a. A responsible corporate officer of the industrial user submitting the reports in a corporation. A responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of principal business function, or any other person who performs similar policy or decision making functions for the corporation or the manager of one or more manufacturing, production, or operation facilities, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. By a general partner or proprietor if the industrial user submitting the reports is a partnership or sole proprietorship;

c. By a duly authorized representative of the individuals described in paragraphs (a) and (b) above.

(9) Certification: All reports and applications required to be filed under this section shall be signed under the following certification statement:

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(B) Records and monitoring:

(1) All industrial users who discharge or propose to discharge wastewater to the POTW shall maintain such records of production and related factors effluent flows, and pollutant amounts or concentrations as are necessary to demonstrate compliance with the requirements of this chapter and any applicable state or federal pretreatment standards or requirements. All industrial users shall retain and preserve for no less than three years, any records, books, documents, memoranda, reports, correspondence, and any and all summaries thereof, relating

to monitoring sampling, and laboratory analyses made by or on behalf of an industrial user in connection with its discharge. All records which pertain to materials which are subject to administrative adjustment or any other enforcement or litigation activities brought by the City pursuant hereto shall be retained and preserved by the discharger until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

(2) Such records shall be made available upon request by the City.

(3) The owner or operator of any premises or facility discharging industrial wastes into the system may be required to install at his or her own cost and expense suitable facilities to obtain accurate samples of wastewater flow into the POTW. Such facilities shall be maintained in proper working order and kept safe at all times.

(4) When more than one user can discharge into a common sewer, the City may require installation of separate monitoring facilities for each user. When there is a significant difference in wastewater constituents and characteristics produced by different operations of a single user, the City may require that separate monitoring facilities be installed for each separate discharge.

(5) Whether constructed on public or private property, the monitoring facilities shall be constructed in accordance with City requirements and all applicable construction on standards and specifications.

(Ord. 10235/91. Passed 3-27-91.)

924.15 INSPECTION AND SAMPLING.

(a) The City may inspect the monitoring facilities of any discharger to determine compliance with the requirements of this chapter. The discharger shall allow the Director or its representatives, upon presentation of credentials of identification, to enter upon the premises of the discharger at all reasonable hours, for the purposes of inspection, sampling or records examination. The City shall have the right to set up on the discharger's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations.

(1) The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events. Under no circumstances shall any increment exceed nine months.

(2) Not later than fourteen days following each date in the schedule and the final date for compliance, the industrial user shall submit a progress report to the Director including, at a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay and the steps being taken by the IU to return to the schedule established.

(b) Final Compliance Report. Any industrial user subject to categorical pretreatment standards shall submit a report indicating whether the user has achieved compliance. This report is to be submitted to the Director within ninety days following the date for final

compliance with applicable categorical pretreatment standards or in the case of a new source discharger, following commencement of the introduction of wastewater into the POTW. The following information shall be included in this report:

(1) Measured average daily and maximum flows of regulated process streams and other nonregulated streams.

(2) Results of sampling and analysis regulated pollutants from each regulated process. For pH, cyanide, total phenols, oil and grease, sulfide and volatile organics a minimum of four grab samples shall be analyzed. For all other pollutants, a minimum of one twenty-four hour flow proportional composite sample shall be obtained. Samples should be taken immediately downstream of pretreatment facilities if such exist or immediately downstream of regulated processes if no pretreatment facilities exist. The samples shall be representative of daily operations.

(3) For industrial users subject to equivalent mass or concentration limits established by the Director, this report shall include a reasonable measure of the user's long-term production rate. For industrial users subject to production-based standards, this report shall include the user's actual production during the appropriate sampling period.

(4) A statement indicating whether pretreatment standards are being met on a consistent basis, and if not, a statement indicating whether additional pretreatment and/or operation and maintenance will be required to meet the pretreatment standards in accordance with Section 924.13.

This report shall include the certification statement and shall be signed by an authorized representative of the discharger as defined in Section1(d)(12).
(Ord. 10235/91. Passed 3-27-91.)

924.16 ANALYSES OF WASTES.

Laboratory procedures used in the examination of industrial wastes shall be those set forth in 40 CFR Part 136. However, alternate methods for certain analyses of industrial wastes may be used subject to mutual agreement between the City and the person.

Determination of the character and concentration of the industrial wastes performed by a discharger in compliance with his self-monitoring obligations shall be made by a qualified person or testing laboratory acceptable to the City.

The person whose wastes are being tested by the City shall promptly reimburse the City for the taking of samples, the per diem rate in effect at that time for each day, or part thereof, that such samples are taken. The fee for analyzing such samples shall be reimbursed in accordance with the fee schedule in effect at the time.

(Ord. 10235/91. Passed 3-27-91.)

924.17 CONFIDENTIAL INFORMATION.

All information and data acquired by any means authorized in this chapter shall be available to the public or any other governmental agency without restriction except as hereinafter provided

for.

Information and data may be deemed confidential by the City upon written request by any person for confidentiality, provided, however, the person is able to demonstrate to the satisfaction of the Director that the release or publication of such information would divulge information, methods, processes or other trade secrets which may jeopardize the applicant's competitive position.

Information, data or material deemed confidential shall not be available for public inspection but shall be available to any governmental agency for studies and/or judicial review provided that such confidential information shall not be provided to anyone until and unless adequate notification is given to the applicant.

All records containing confidential material shall be stored in locked files.

Wastewater characteristics and constituents shall not be considered as confidential information. (Ord. 10235/91. Passed 3-27-91.)

924.18 RECORDS RETENTION.

All dischargers subject to this chapter shall retain and preserve for no less than three years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made by or in behalf of a discharger in connection with its discharge. All records which pertain to matters that are the subject of enforcement or litigation activities brought by the City pursuant hereto shall be retained and preserved by the discharger until all enforcement activities have been concluded and all periods of limitation with respect to any and all appeals have expired.
(Ord. 10235/91. Passed 3-27-91.)

924.19 EMERGENCY SUSPENSION OF SERVICE.

The City may for good cause shown suspend the wastewater treatment service to a discharger, without issuing a notice of violation, when it appears to the City that an actual or threatened discharge presents or threatens an imminent or substantial danger to the health or welfare of persons. Any discharger notified of the suspension of the City's wastewater treatment service shall immediately cease all discharges. In the event of failure of the discharger to comply voluntarily with the suspension order, the City shall have the right to remove or close sewer connections and enter upon the property for accomplishing such purposes. The Director shall reinstate the wastewater treatment service pending proof by the discharger of the elimination of the noncomplying discharge or conditions creating the threat of imminent or substantial danger as set forth above.
(Ord. 10235/91. Passed 3-27-91.)

924.20 NOTIFICATION OF VIOLATION.

Whenever the City finds that any discharger has engaged in conduct which violates any provision of this chapter except for emergency suspension (Section 924.19) and falsifying information (Section 924.99(c)), the City shall serve or cause to be served upon such

discharger, a written notice by certified or registered mail, return receipt requested, stating the nature of the alleged violation. Service shall be made on any authorized representative of the discharger. The discharger shall respond personally or in writing to the City within the time period specified in the notice advising of its position with respect to the allegations. Thereafter, the parties shall meet to ascertain the veracity of the allegations and where necessary, establish a plan for the satisfactory correction thereof.
(Ord. 10235/91. Passed 3-27-91.)

924.21 SHOW CAUSE HEARING.

Where the violation referred to in Section 924.20 is not corrected by timely compliance, the City may order any discharger which causes or allows conduct prohibited by Section 924.20 to show cause before the Safety-Service Director or his duly authorized representative why termination of wastewater treatment service should not be taken. A written notice shall be served on the discharger by certified or registered mail, return receipt requested, specifying the time and place of a hearing to be held by the Safety-Service Director or designee regarding the violation, the reasons why the enforcement action is to be taken, the proposed enforcement action and directing the discharger to show cause why the proposed enforcement action should not be taken. The notice of the hearing shall be served no less than ten days before the hearing. Service may be made on any agent, officer or authorized representative of a discharger. The proceedings at the hearing shall be considered by the Safety-Service Director who shall then enter appropriate orders with respect to the alleged improper activities of the discharger.
(Ord. 10235/91. Passed 3-27-91.)

924.22 REVOCATION OF SERVICES.

In accordance with the procedures specified in Sections 924.20 and 924.21, the City shall have the authority to terminate wastewater treatment services to any discharger who fails to correct a violation of this chapter within the time period specified after being issued a notice of violation and given the opportunity to show cause why such termination should not be taken.
(Ord. 10235/91. Passed 3-27-91.)

924.23 CONTROLLED DISCHARGE OF ANY TRUCKED OR HAULED WASTE.

No person shall access the sewer system or POTW for any activity including discharge of hauled septic or industrial wastes except at locations and at times as designated by the Director. Any removal of manhole lids, or other access to the sewer system for the purpose of discharging wastes at times and/or locations other than those designated by the Director, or without the expressed permission of the Director, shall be considered a violation and shall be subject to enforcement action including fines and penalties allowed under this chapter.
(Ord. 10235/91. Passed 3-27-91.)

924.24 JUDICIAL PROCEEDINGS.

Following the entry of any order by the City with respect to the conduct of a discharger contrary to the provisions of Section 924.19, the Law Director may, following the authorization of such action by the City, commence an action for appropriate legal and/or equitable relief in the Court of Common Pleas.

(Ord. 10235/91. Passed 3-27-91.)

924.25 ANNUAL PUBLICATION.

Annually, the City shall publish in the local newspaper a list of all industrial users which at any time during the previous twelve months were in significant noncompliance with applicable pretreatment standards or requirements.
(Ord. 10235/91. Passed 3-27-91.)

924.99 PENALTY.

(a) Civil Penalties. Any discharger who violates an order of the City or fails to comply with any provision of this chapter shall be subject to the imposition of a civil penalty. The City may assess these penalties in accordance with the tier system below. Such civil penalties shall be determined by the City based on the severity of the violation and the number of times the discharger was in violation for the same limit.

The tier system is as follows:

Tier 1 One thousand dollars ($1,000) per violation; each day constitutes a separate violation.

Tier 2 Five thousand dollars ($5,000) per violation; each day constitutes a separate violation.

Tier 3 Ten thousand dollars ($10,000) per violation; each day constitutes a separate violation.

(Ord. 11047/97. Passed 5-14-97.)

(b) Criminal Penalties. A discharger's willful or negligent violation of this chapter will be subject to criminal prosecution when the City of Warren has evidence of noncompliance which shows criminal intent, and such discharger shall be punished by a fine of not more than one thousand dollars ($1,000) or by imprisonment for not more than six months, or by both. Each day in which any such violation continues shall constitute a separate offense.

(c) Falsifying Information. Any person who knowingly makes false statements, representations or certifications in any application, record, report, plan or other document filed or required to be maintained pursuant to this chapter, or wastewater contribution permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this chapter, shall be punished by a fine of not more than one thousand dollars ($1,000) or by imprisonment for not more than six months, or by both.

(d) Administrative Penalties. The City may assess penalties ranging in the amount of one hundred dollars ($100.00) to three hundred dollars ($300.00) per day upon any sewer user who fails to comply with the numerical value or administrative orders issued by the City or other regulatory agencies. Such administrative penalties shall be determined by the City based on the severity of the violation and the range of response (Tier) called for in the amended pretreatment program, enforcement response program.

The Tier structure called for in the enforcement response program administrative penalties shall be as follows:

Tier 1 One hundred dollars ($100.00) per violation; each day constitutes a separate violation.

Tier 2 Two hundred dollars ($200.00) per day violation; each day constitutes a separate violation.

Tier 3 Three hundred dollars ($300.00) per day violation; each day constitutes a separate violation.

Note: In addition to the administrative penalties stated herein, surcharges may be imposed upon violating dischargers. As stated in Section 925.03(d), such surcharges are intended to recover the additional costs associated with treating extra strength discharges and are not penalties.

(Ord. 10235/91. Passed 3-27-91.)

Water Pollution Control Department

City of Warren, Ohio

Michael J. O'Brien
Mayor

2323 Main Ave., S.W., Warren, Ohio 44481-9603
Phone: (330) 841-2591 Fax: (330) 841-2717

William Douglas Franklin
Director of Service-Safety

Thomas A. Angelo
Director

James Wilden
Superintendent

Greg Lubert
Sewer Systems
Superintendent

Michael T. Welke
Biosolids Manager

Keith Folman
Industrial Pretreatment
Coordinator

September 15, 2011

Tomás Parry
OEPA Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087

Re: NPDES Form 2A Permit Application

Dear Tomás,

Thank you for joining USEPA on Tuesday, September 13, 2011 of this week. I was not expecting a presence from Ohio and your involvement helped clarify some confusion that I had over the timing of our NPDES Permit expiration. As you recall during the plant tour, this subject was brought up and my belief was that the permit expired in July of 2012. A review of the permit indicated otherwise. Please accept my apologies for the late submittal of this application. I did not realize that it was due in July because I assumed the expiration date was July of 2012 due to the effective date being July 1, 2012. This is the third NPDES permit application I have been involved with and all prior ones expired in July. Also I was attempting to finalize the Local Limits documentation that would be needed for the submittal. A number of questions arose from our submission of the same in July of this year and our contracted Engineering Firm, Hazen And Sawyer, has been working with Columbus to finalize this document. To date this has not occurred but I am submitting what we have for review with this application. Again, thank you for the time and advice.

Our Combined Sewer Separation Project was completed in September of 2006. As a result, the City of Warren, Ohio no longer has sewers designed to operate as a combined system. We now have separate sanitary and storm sewers. However, when the High Street CSO #3PE00008020 was eliminated during the final stages of construction, Warren experienced an intense rainfall of approximately 1.9" inches in a little of 1 hour. This resulted in basement backups in the downtown business area that previously never surcharged. A decision was made to open the overflow on High Street and begin an investigation as to why the basements would backup when all of the surface water had been allegedly removed. This resulted in the construction of a Sanitary Sewer Overflow.

As indicated in my letter to you on March 17, 2011, an extensive volume of work and studies have already been accomplished that resulted in the removal of a considerable amount of infiltration and inflow that contributed the basement backups. The remaining project is the removal of the roof drains in the downtown area. Our timeline was to have them removed and the SSO eliminated by the end of the year. However, delays in completing contract documents with our selected Engineering Firm and finalizing construction of 2 storm water retention ponds (that was delayed due to excessive wet weather in spring) caused the timeline to fall behind. We had a kickoff meeting with URS Corp. (our selected Engineering Firm for the project) on August 30, 2011. A number of the necessary building reviews had already been accomplished by the City and URS will be completing the remaining reviews and developing specifications for bid. It is our goal to bid this project in November. Our projected completion date was late spring to early summer which would have met my perceived timeline of having the SSO removed prior to the expiration of our current NPDES Permit. Obviously my previously discussed oversight as to the actual date of expiration does not allow this to occur. However, that does not stop Warren from eliminating the SSO before January 31, 2012. The SSO can still be bricked up but it would present the possibility of flooded basements if a mid-winter thaw with rains would happen. This is not desirable and I am asking OEPA to allow for the completion of the project within the projected timeline as discussed.

If you have any questions regarding this information, please do not hesitate to contact me.

Thank you,

Thomas A. Angelo
Director
Water Pollution Control Center

Pc: Jim Wilden
Plant File
Attachments

File; c:/wpc/word/Tomas Parry NPDES Permit (2011)

Please type. Do not complete by hand.

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting)

I. EPA I.D. NUMBER

LABEL ITEMS
I. EPA I.D. NUMBER
III. FACILITY NAME
V. FACILITY MAILING ADDRESS
VI. FACILITY LOCATION

Ohio EPA does not provide labels. Enter this information in items I, III, V and VI.

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through G to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms.**

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.?** (FORM 2A)			X	B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.?** (FORM 2B)		X	
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)		X		D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.?** (FORM 2D)		X	
E. Is this a facility which does not discharge process **wastewater?** (FORM 2E)		X		F. Is this a facility which discharges stormwater associated with industrial activity? (FORM 2F)		X	
G. Do you generate **sewage sludge** that is ultimately regulated by Part 503? Do you generate **sewage sludge** that is sent to another **facility** for treatment or blending? Do you process or derive material from **sewage sludge** that is disposed in a manner subject to Part 503? (FORM 2S)	X		X				

III. NAME OF FACILITY

City of Warren, Ohio Water Pollution Control Facility

IV. FACILITY CONTACT

A. NAME & TTILE *(last, first, title)*	B. PHONE *(area code & no.)*
Angelo, Thomas - Director (ww4-1008404-03)	(330) 841 - 2591

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX			
2323 Main St.			
B. CITY OR TOWN	**C. STATE**	**D. ZIP CODE**	
Trumbull	Ohio	44481	

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER			
2323 Main St.			
B. COUNTY NAME			
Trumbull			
C. CITY OR TOWN	**D. STATE**	**E. ZIP CODE**	**F. COUNTY CODE** *(if known)*
Warren	Ohio	44481	

Click to clear all entered information (on both pages of this form) CLEAR

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST		B. SECOND	
	(specify) 4950		*(specify)*
C. THIRD		**D. FOURTH**	
	(specify)		*(specify)*

VIII. OPERATOR INFORMATION

A. NAME	B. Is the name listed in Item VIII-A also the owner?
City of Warren, Ohio	☒ Yes ☐ No

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other", specify.)*			D. PHONE *(area code & no.)*
F = FEDERAL S = STATE P = PRIVATE	M = PUBLIC *(other than federal or state)* O = OTHER *(specify)*	M	*(specify)* (330) 841 – 2591

E. STREET OR P.O. BOX

2323 Main St.

F. CITY OR TOWN	G. STATE	H. ZIP CODE	IX. INDIAN LAND
Warren	Ohio	44481	Is this facility located on Indian lands? ☐ Yes ☒ No

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to surface water)*	D. PSD *(Air emissions from proposed sources)*	
3PE00008*LD		
B. UIC *(Underground injection of fluids)*	**E. OTHER** *(specify)*	
		(specify)
C. RCRA *(Hazardous waste)*	**F. OTHER** *(specify)*	
		(specify)

XI. MAP

Attach to this application a topographical map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS ***(provide a brief description)***

Municipal Wastewater Treatment Plant

XIII. CERTIFICATION *(see instructions)*

I certify under penatly of law that I have personally examined and am famimliar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I belive that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED

COMMENTS FOR OFFICIAL USE ONLY

OhioEPA

State of Ohio Environmental Protection Agency

Ohio EPA Form 2A
Revised 7/07

National Pollutant Discharge Elimination System

Application for Permit to Discharge Wastewater Publicly Owned Treatment Works

NPDES Form 2A

Submit this application to the appropriate district office

District Offices
Northeast District • 2110 East Aurora Road • Twinsburg, Ohio • 44087
Northwest District • 347 North Dunbridge Road • Bowling Green, Ohio • 43402
Central District • P.O. Box 1049 • Columbus, Ohio • 43216-1049
Southeast District • 2195 Front Street • Logan, Ohio • 43138
Southwest District • 401 East 5th Street • Dayton, Ohio • 45402

For Agency Use	Facility Name:	Date Received (yy/mm/dd)
	Ohio EPA Permit Number:	Application Number:

OhioEPA

Form 2A
NPDES Application for Permit to Discharge Wastewater
Publicly-Owned Treatment Works

I. Outfall Information

(All treatment works must complete Part I)

A. Description of Outfall. List all effluent outfalls through which sanitary wastewater is discharged. Do not include information on combined sewer overflows (CSO) or collection system / treatment works bypass points.

Outfall Number	Latitude			Longitude			Discharge Point Location	Receiving Water
	Deg.	Min.	Sec.	Deg.	Min.	Sec.		
	41N	12'	08"	80W	48'	02"	Final Effluent	Mahoning River

Latitude/Longitude Data Comments: _____

B. Intermittent Discharges. Except for storm runoff, leaks, or spills are any of the discharges described in Item A intermittent or seasonal?

_____ Yes *(Complete the following table)* ___X___ No

Outfall Number	Period of Discharge	Frequency	Duration

II. Treatment Works Information

(All treatment works must complete Part II. The treatment works includes the collection system and treatment plant.)

A. Population. List the municipalities or areas served *(municipalities and unincorporated service areas).* Also, list their populations or total population served. *(Attach additional pages as needed)*

Municipality or Area	Population Served
City of Warren, Ohio	43,402
Village of Lordstown, Ohio	3,522
Champion Township, Ohio	9,762
Howland Township, Ohio	1,525
Warren Township, Ohio	850
Total Population Served:	59,061

Click to clear all entered information (on all 6 pages of this form) CLEAR

B. Collection System

1. Indicate the type(s) of collection system(s) tributary to this treatment plant; check all that apply. Also estimate the percent contribution (by miles) of each.

X	Separate Sanitary Sewer	100 %
	Combined Storm and Sanitary Sewer	%

2. Are you responsible for maintenance of the entire collection system tributary to the treatment plant?

X Yes _____ No *(List entities who are responsible for the collection system below)*

3. Total number of lift stations in your collection system.

7 Separate Sanitary
_____ Combined Storm and Sanitary

4. Does your collection system have bypasses or overflows? *(Do not include CS0s)*

X Yes _____ No

If yes, are the overflows or bypasses:

X a. at locations specifically constructed to provide hydraulic relief to the collection system
_____ b. unintentional and beyond the reasonable control of the operator

For the overflows or bypasses that are "specifically constructed", complete the following table.

Discharge Point Location	Latitude			Longitude			Receiving Water	Treatment Description
	Deg.	Min.	Sec.	Deg.	Min.	Sec.		
High ST./N. Park	41N	14'	15"	80W	49'	13"	Mahoning River	See Cover Letter

Latitude/Longitude Data Comments: _____

5. List source(s) of water supply that services the entire collection system. *(Attach additional pages as needed)*

Source Type	Source Location	Owner
Lake	Trumbull County	Army Corp of Engineers
Private Well	Various	Various

C. Inflow and Infiltration

1. Estimate the current average inflow and infiltration flow rate in gallons per day (gpd) for the sewerage system:

2,520,000 gpd

2. Briefly explain any steps underway or planned to minimize inflow and infiltration. *(Attach additional pages as needed)*
Warren's 2004 Comprehensive Sewer System Master Plan (Summary Attached)

D. Flow. Indicate the design influent flow rate of your treatment plant. Also provide the annual average daily flow rate for each of the last three years (mgd to three decimal places).

1. Design daily influent flow rate: 16.000 mgd

	Two Years Ago	Last Year	This Year	
2. Annual average daily flow rate:	13.380	15.560	17.610	mgd

3. How was flow rate determined?

___ Parshall Flume ___ Weir ___ Venturi ___ Electromagnetic X Sonic ___ Estimate ___ Other

4. Location where flow rate was measured: WWPC - Channel between Primary & Secondary

5. Are there current or expected plans to expand the existing treatment plant capacity during the life of the permit?

_____ Yes *(Provide details on expansion on separate page)* ___X___ No

E. Treatment System Description *(Attach additional pages as needed)*

1. Give the approximate year of the treatment plant construction: 1962

2. Give the approximate year of the treatment plant last major modification: 1997

3. List all treatment units at the treatment plant. Do not include units for treating sewage sludge.

Treatment Code *(See Instructions)*	Treatment Type	Manufacturer *(if known)*
02	Preliminary	
03	Preliminary	
08	Primary	
25	Biological	
39	Physical	
70	Chemical	
71	Chemical	

4. Does this treatment plant have provisions for bypassing untreated or partially-treated wastewater?

_____ Yes *(Complete the following table)* ___X___ No

Bypass Location	Station Number *(if applicable)*	Bypass Type	Number of times used in last year

5. Does your treatment plant have backup generators or other provision(s) to allow operation and/or treatment to continue during power outages?

___X___ Yes _____ No

6. Provide a line drawing showing the wastewater flow through the treatment plant, including all bypass piping.

F. Treatment Operations

1. Number of employees at the treatment works

10	Collection system	8	hr/day	5	days/wk
31	Treatment plant	24	hr/day	7	days /wk

2. Name and certification of person in responsible charge of the treatment works.

Thomas A. Angelo - WW4-1008404-03

3. Name and certification of person in responsible charge of each collection system tributary to the treatment plant *(if known). (Attach additional pages as needed)*

Thomas A. Angelo - WW4-1008404-03
Gregory Lubert - WW3-1008300-85

4. Does the treatment works (collection system and/or treatment plant) have an Operations and Maintenance Manual?

X Yes *(Complete the following table. Attach additional pages as needed.)* _____ No

Type	Developed By	Date Developed	Date of Last Modification
Plant	Havens & Emerson	1988	
Plant	In-House	1993	2010
Collection	Havens & Emerson	1980	2004

G. Improvements

1. Are you required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions administrative orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

_____ Yes *(Complete the following table. Attach additional pages as needed.)* X No

Identification of Condition	Outfall Number	Description of Project	Final Compliance Date

2. Optional: You may provide information describing any additional water pollution control programs (or other environmental projects which may affect your discharge) that are currently in progress or planned. Indicate the implementation schedule for the programs.

III. Combined Sewers System Information *(Attach additional pages as needed)*

A. Does the treatment works have CSOs in the collection system?

_____ Yes *(Complete the following table for each CSO)* ___X___ No

Outfall Number	Description	Latitude			Longitude			Receiving Water
		Deg.	Min.	Sec.	Deg.	Min.	Sec.	

Latitude/Longitude Data Comments: _____

B. System Evaluation. List below studies that have been performed of the combined sewer collection system since the last permit application. Include modeling studies, hydraulic studies, past monitoring efforts, facility plans, etc.

Date	Title/Description	Author
_____	_____	_____
_____	_____	_____
_____	_____	_____

IV. Industrial Users Information

A. Number of Industrial Users. Provide the number of each of the following types of industrial users that discharge to this treatment works.

1. Number of Industrial Users: ___10___
2. Number of non-categorical significant industrial users (SIU): ___1___
3. Number of categorical industrial users: ___9___

B. Average Daily Flow from all Industrial Users. Estimate the total average daily wastewater flow from all industrial users.

1. All industrial users: ___1.019___ mgd
2. Non-categorical SIUs only: ___.1___ mgd
3. Categorical industrial users only: ___.919___ mgd

C. Pretreatment Program. Does this POTW have an approved pretreatment program? ___X___ Yes _____ No

If *no*, does this POTW have technically-based local limits? _____ Yes _____ No

V. Remediation Waste Clean Up Information

A. RCRA/CERCLA/BUSTR/VAP Wastes. Does the treatment works currently receive (or is it expected during the life of the permit to receive) RCRA hazardous waste, CERCLA (Superfund) site remediation waste, RCRA corrective action waste, BUSTR waste or VAP waste?

_____ Yes *(Complete the following table. Attach additional pages as needed.)* _____ No

Type of Action	Waste Origin	Waste Description

VI. Contract Laboratory Information

A. Contract Laboratory Analysis Information. Are any of the analyses used to obtain effluent quality information or toxicity test data performed by a contract laboratory or consulting firm?

__X__ Yes *(Complete the following table. Attach additional pages as needed.)* _____ No

Name	Address	Telephone Number	Pollutants Analyzed
Precision Analytical Inc.	4450 Johnstown Pky Unit B	(216) 663-0808	See Attached

VII. Biological Toxicity Test Data

POTWs with a design flow rate greater than 1 mgd or POTWs with an approved pretreatment program must provide the results of whole effluent biological toxicity tests for acute or chronic toxicity for each discharge. The tests must have been performed during the last three years and must have followed Ohio EPA testing protocol. **See instructions for minimum test requirements.**

Is a Whole Effluent Biological Toxicity Test being submitted? __X__ Yes _____ No

If answered *no* above, but required to submit, provide explanation:

VIII. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME AND OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
Thomas A. Angelo - Director	(330) 841-2591
C. SIGNATURE	D. DATE SIGNED

OhioEPA
State of Ohio Environmental Protection Agency

Ohio EPA Form 2S
Revised 1/07

National Pollutant Discharge Elimination System

Application for Sewage Sludge Use or Disposal
NPDES Form 2S

Submit this application to the appropriate district office

District Offices
Northeast District • 2110 East Aurora Road • Twinsburg, Ohio • 44087
Northwest District • 347 North Dunbridge Road • Bowling Green, Ohio • 43402
Central District • P.O Box 1049 • Columbus, Ohio • 43216-1049
Southeast District • 2195 Front Street • Logan, Ohio • 43138
Southwest District • 401 East 5th Street • Dayton, Ohio • 45402

For Agency Use	Facility Name:	Date Received (yy/mm/dd)
	Ohio EPA Permit Number:	Application Number:

OhioEPA

Form 2S
NPDES Application for Sewage Sludge Use or Disposal

I. General Information

A. Treatment System Description

1. List all treatment units used for collecting, dewatering, storing, or treating sewage sludge:

Treatment Code	Treatment Type	Manufacturer
A8	Air Flotation Thickening	
A5	Mechanical Dewatering (Filter Press)	Ash Brook
98	Lime Stabilization	RDP
A1	Air Drying	
C4	Land Spreading	
C6	Distribution and/or Marketing	

2. Provide a line drawing that identifies all sewage sludge treatment processes that will be employed during the term of the permit.

3. Is this facility a Class I sludge management facility? Class I facilities include POTWs required to have an approved pretreatment program.
   ___X___ Yes _____ No

4. Process design capacity of the sewage sludge treatment system (gallons of sludge/yr x 8.34 lb/gal x tons/2000 lb x percent solids): ___20,592___ dry tons/yr

5. Date of the sewage sludge treatment system construction or last major modification: ___10/15/1997___

B. Amount Generated On Site

1. Total sewage sludge generated at your facility for the most recent year: ___2,826.8___ dry tons

2. Do you receive sewage sludge from other generators? _____ Yes ___X___ No

   If *yes*, total received from other generators for the most recent year: _____ dry tons

3. Do you receive domestic septage? ___X___ Yes _____ No

   If *yes*, total amount of domestic septage received for the most recent year: ___1.365___ gallons

Click to clear all entered information (on all 5 pages of this form) CLEAR

C. Pollutant Information. Using the table below, provide data on the pollutant concentrations in sewage sludge from your facility during the previous year.

Laboratory Name: _____

Pollutant Name	CAS #	No. of Analyses	Average Concentration (mg/kg)	Maximum Monthly Average Concentration (mg/kg)	Range of Data (Min. - Max.) (mg/kg)	Minimum Detection Level
Arsenic	7440-38-2	12	4.580	7.26	1.02-7.26	<2.0
Cadmium	7440-43-9	12	<2.0	<2.0	<0.498-<1.37	<2.0
Copper	7440-50-8	12	93.83	124	34.6-124	10
Lead	7439-92-1	12	30.22	63	8.68-63	10
Mercury	7439-97-6	12	.478	.984	<0.147-.984	<.2
Molybdenum	7439-98-7	12	15.46	30.6	4.68-30.6	10
Nickel	7440-02-0	12	31.818	71.1	9.01-71.1	10
Selenium	7782-49-2	12	16.38	37.6	<1.14-37.6	<2.0
Zinc	7440-66-6	12	309.5	467	93.5-467	10

D. Sewage sludge treatment and disposal characteristics. Complete the following to determine the applicability of your facility's sewage sludge use or disposal practices. If you answer yes to any question, you must complete the applicable section. Complete all sections that apply to your facility.

No	Is sewage sludge from your facility hauled to another facility that provides treatment or blending? This section does not apply to sewage sludge hauled to land application or surface disposal sites. **(Section II: Shipment Off Site for Treatment)**
Yes	Is sewage sludge from your facility applied to the land? This section includes exceptional quality sewage sludge (EQS) and sewage sludge applied to land reclamation sites. **(Section III: Land Application of Bulk Sewage Sludge)**
No	Is sewage sludge from your facility placed on a surface disposal site? **(Section IV: Surface Disposal)**
No	Is sewage sludge from your facility fired in a sewage sludge incinerator? **(Section V: Incineration)**
No	Is sewage sludge from your facility placed on a municipal solid waste landfill? **(Section VI: Disposal In a Municipal Solid Waste Landfill)**

II. Shipment Off Site for Treatment or Blending

A. Total sewage sludge hauled to all receiving facilities for the most recent year: _____ dry tons

B. Information on off site treatment or blending. Complete this section for each receiving facility *(Attach additional pages as necessary)*

1. Name of facility: _____

2. Facility contact: Name: _____

   Title: _____ Phone: _____

3. Facility location: Street: _____

   City: _____ State: _____ Zip: _____

4. Total sewage sludge provided to this receiving facility for the most recent year: _____ dry tons

III. Land Application of Bulk Sewage Sludge

A. Land Application Generation Information

1. Total sewage sludge from your facility applied to all land application sites for the most recent year: 3,320.1 dry tons

2. Total number of land application sites currently assigned an Ohio EPA site identification number: N/A

3. Total acreage of land application sites currently assigned an Ohio EPA site identification number: N/A

4. List all counties that you currently (or you expect during the life of the permit to) land apply sewage sludge.
   Bulk - Trumbull, Mahoning, Ashtabula, Geauga, Portage, Columbinia, Lake
   Bagged - State of Ohio, West Virginia, Pennsylvania

5. Are any land application sites located in states other than Ohio? X Yes _____ No

   If yes, describe how you notify the permitting authority for the States where the land application sites are located.
   Separate PTI and Sludge Reporting Form with the Pennsylvania DEP also the Department of Agricultural

6. Does sewage sludge from your facility meet the ceiling concentration limits in Table 1 of 40 CFR 503.13 and the pollutant concentrations in Table 3 of 40 CFR 503.13? X Yes _____ No

   If yes, provide total percentage from Section III A.1 that met the ceiling and pollutant concentrations for the most recent year that was land applied: 100%

7. Does sewage sludge from your facility meet the ceiling concentrations in Table 1 of 40 CFR 503.13 but does not meet the pollutant concentrations in Table 3 of CFR 503.13? _____ Yes X No

   If yes, provide total percentage from Section III A.1 that met the ceiling concentrations but not the pollution concentrations for the most recent year that was land applied: _____

8. What percentage of sewage sludge from Section III A.1 (in dry tons per year) is achieved for each pathogen reduction class? 100% Class A _____ Class B

9. Which Pathogen Reduction Alternative is used to achieve the class? *(Choose all that apply)*

	Class A		**Class B**
	Thermally Treated Biosolids		Monitoring of Indicator Organisms
X	Biosolids Treated in a High pH- Temp.		PSRP, Aerobic Digestion
	Biosolids Treated in Other Processes		PSRP, Air Drying
	Biosolids Treated in Unknown Processes		PSRP, Anaerobic Digestion
	PFRP, Composting		PSRP, Composting
	PFRP, Heat Drying		PSRP, Lime Stabilization
	PFRP, Thermophilic Aerobic Digestion		Biosolids Treated in a PSRP Equivalent
	PFRP, Beta Ray Irradiation		
	PFRP, Gamma Ray Irradiation		
X	PFRP, Pasteurization		
	PFRP, Heat Treatment		
	Biosolids Treated in a PFRP Equivalent		

10. Which Vector Attraction Reduction option is met for the sewage sludge at your facility? *(Choose all that apply)*

	VAR Option
	Option 1 (Minimum 38 percent reduction in volatile solids)
	Option 2 (Anaerobic process, with bench-scale demo)
	Option 3 (Aerobic process, with bench-scale demo)
	Option 4 (Specific oxygen uptake rate for aerobic digested sludge)
	Option 5 (Aerobic process plus raised temperature)
X	Option 6 (Raise pH to 12 and retain at 11.5)
	Option 7 (75 percent solids with no unstabilized solids)
	Option 8 (90 percent solids with unstabilized solids)
	Option 9 (Injection below land surface)
	Option 10 (incorporation into soil within 24 hours)
	Option 11 (Cover sludge placed on a surface disposal)
	Option 12 (Domestic septage pH adjustment)

B. Spill Contingency Plan. All facilities that land apply sewage sludge are required to have a spill contingency plan.

1. Date spill contingency plan was submitted to Ohio EPA: _____

2. Have there been any substantial modifications to the spill contingency plan since it was submitted to Ohio EPA?
   _____ Yes _____ No

   If yes, please submit a copy of the modified spill contingency plan to the appropriate district office.

IV. Surface Disposal

A. Total sewage sludge from your facility placed on all surface disposal sites for the most recent year: _____ dry tons

B. Information on Active Sewage Sludge Units. Complete this section for each active sewage sludge unit. *(Attach additional pages as necessary)*

1. Name of facility: _____

2. Facility contact: Name: _____

   Title: _____ Phone: _____

3. Facility location: Street: _____

   City: _____ State: _____ Zip: _____

4. Total sewage sludge placed on the active sewage sludge unit for the most recent year: _____ dry tons

V. Incineration

A. Total sewage sludge from your facility fired in all sewage sludge incinerators for the most recent year: _____ dry tons

B. Information on Sewage Sludge Incinerators. Complete this section for each incinerator. *(Attach additional pages as necessary)*

1. Name of facility: _____

2. Incinerator air permit number: _____

3. Facility contact: Name: _____

   Title: _____ Phone: _____

4. Facility location: Street: _____

   City: _____ State: _____ Zip: _____

5. Total sewage sludge from your facility fired in this sewage sludge incinerator for the most recent year:

   _____ dry tons

VI. Disposal in a Municipal Solid Waste Landfill

A. Total sewage sludge from your facility placed in all municipal solid waste landfills for the most recent year:

_____ dry tons

B. Information on municipal solid waste landfills. Complete this section for each municipal solid waste landfill. *(Attach additional pages as necessary)*

1. Name of facility: _____

2. Facility contact: Name: _____

   Title: _____ Phone: _____

3. Facility location: Street: _____

   City: _____ State: _____ Zip: _____

4. Total sewage sludge from your facility fired in this sewage sludge incinerator for the most recent year:

   _____ dry tons

VII. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME AND OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
Thomas A. Angelo - Director	(330) 841-2591
C. SIGNATURE	D. DATE SIGNED

State of Ohio Environmental Protection Agency

DIVISION OF SURFACE WATER

Antidegradation Addendum

In accordance with Ohio Administrative Code 3745-1-05 (Antidegradation), additional information may be required to complete your application for a permit to install or NPDES permit. For any application that may result in an increase in the level of pollutants being discharged (NPDES and/or PTI)or for which there might be activity taking place within a stream bed, the processing of the permit(s) may be required to go through procedures as outlined in the antidegradation rule. The rule outlines procedures for public notification and participation as well as procedures pertaining to the levels of review necessary. The levels of review necessary depend on the degradation being considered/requested. The rule also outlines exclusions from portions of the applicati on and review requirements and waivers that the Director may grant as specified in Section 3745-1-05(D) of the rule. Please complete the following questions. The answers provided will allow the Ohio EPA to determine if additional information is needed. **All projects that require both an NPDES and PTI should submit both applications simultaneously to avoid going through the antidegradation process separately for each permit**.

A. **Applicant:** Warren Wastewater Treatment Facility

Facility Owner: City of Warren, Ohio

Facility Location (city and county): Warren, Trumbull

Application or Plans Prepared By: Thomas A. Angelo

Project Name: N/A

NPDES Permit Number (if applicable): 3PE00008*LD

B. **Antidegradation Applicability**

Is the application for? (check as many as apply):

_____ Application with no direct surface water discharge (Projects that do not meet the applicability section of 3745-1-05(B)1, i.e., on-site disposal, extensions of s anitary sewers, spray irrigation, indirect discharger to POTW, etc.). (Complete Section E)

__X__ Renewal NPDES application or PTI application with no requested increase in loading of currently permitted pollutants. (Complete Section E, Do not complete Sections C or D).

_____ PTI and NPDES application for a new wastewater treatment works that will discharge to a surface water. (Complete Sections C and E)

_____ An expansion/modification of an existing wastewater treatment works discharging to a surface water that will result in any of the following (PTI and NPDES):(Complete Sections C and E)

- addition of any pollutant not currently in the discharge, or
- an increase in mass or concentration of any pollutant currently in the discharge, or
- an increase in any current pollutant limitation in terms of mass or concentration.

Click to clear all entered information (on all 4 pages of this form) CLEAR

_____ PTI that involves placement of fill or installation of any portion of a sewerage system (i.e., sanitary sewers, pump stations, WWTP, etc.) within 150 feet of a stream bed. Please provide information requested on the stream evaluation addendum (i.e., number of stream crossings, fill placement, etc.) and complete Section E.

_____ Initial NPDES permit for an existing treatment works with a wastewater discharge prior to October 1, 1996. (Complete Sections D and E)

_____ Renewal NPDES permit or modification to an effective NPDES permit that will result in any of the following: (Complete Sections C and E)

- a new permit limitation for a pollutant that previously had no limitation, or
- an increase in any mass or concentration limitation of any pollutant that currently has a limitation.

C. Antidegradation Information

1. Does the PTI and/or NPDES permit application meet an exclusion as outlined by OAC 3745-1-05(D)(1) of the Antidegradation rule?

   _____ Yes (Complete Question C.2)

   _X_ No (Complete Questions C.3 and C.4)

2. For projects that would be eligible for exclusions provide the following information:

   a. Provide justification for the exclusion.

   b. Identify the substances to be discharged, including the amount of regulated pollutants to be discharged in terms of mass and concentration.

   c. A description of any construction work, fill or other structures to occur or be placed in or near a stream bed.

3. Are you requesting a waiver as outlined by OAC 3745-1-05(D)(2-7) of the Antidegradation rule?

   _X_ No

   _____ Yes

   If you wish to pursue one of the waivers, please identify the waiver and submit the necessary information to support the request. Depending on the waiver requested, the information required under question C.4 may be required to complete the application.

4. For all projects that do **not** qualify for an exclusion a report must accompany this application evaluating the preferred design alternative, non-degradation alternatives, minimal degradation alternatives, and mitigative techniques/measures for the design and operation of the activity. The information outlined below should be addressed in this report. If a waiver is requested, this section is still required.

   a. Describe the availability, cost effectiveness and technical feasibility of connecting to existing central or regional sewage collection and treatment facilities, including long range plans for

sewer service outlined in state or local water quality management planning documents and applicable facility planning documents.

b. List and describe all government and/or privately sponsored conservation projects that may have been or will be specifically targeted to improve water quality or enhance recreational opportunities on the affected water resource.

c. Provide a brief description below of all treatment/disposal alternatives evaluated for this application and their respective operational and maintenance needs. (If additional space is needed please attach additional sheets to the end of this addendum).

Preferred design alternative:

Non-degradation alternative(s):

Minimal degradation alternative(s):

Mitigative technique/measure(s):

At a minimum, the following information must be included in the report for each alternative evaluated.

d. Outline of the treatment/disposal system evaluated, including the costs associated with the equipment, installation, and continued operation and maintenance.

e. Identify the substances to be discharged, including the amount of regulated pollutants to be discharged in terms of mass and concentration.

f. Describe the reliability of the treatment/disposal system, including but not limited to the possibility of recurring operation and maintenance difficulties that would lead to increased degradation.

g. Describe any impacts to human health and the overall quality and value of the water resource.

h. Describe and provide an estimate of the important social and economic benefits to be realized through this proposed project. Include the number and types of jobs created and tax revenues generated.

i. Describe environmental benefits to be realized through this proposed project.

j. Describe and provide an estimate of the social and economic benefits that may be lost as a result of this project. Include the impacts on commercial and recreational use of the water resource.

k. Describe the environmental benefits lost as a result of this project. Include the impact on the aquatic life, wildlife, threatened or endangered species.

l. A description of any construction work, fill or other structures to occur or be placed in or near a stream bed.

m. Provide any other information that may be useful in evaluating this application.

D. Discharge Information

1. For treatment/disposal systems constructed pursuant to a previously issued Ohio EPA PTI, provide the following information:

PTI Number _____
PTI Issuance Date _____
Initial Date of Discharge _____

2. Has the appropriate NPDES permit application form been submitted including representative effluent data?

_____ Yes (go to E)

_____ No (see below)

If no, submit the information as applicable under **a OR b** as follows:

a. For entities discharging process wastewater attach a completed 2C form.

b. For entities discharging wastewater of domestic origin attach the results of at least one chemical analysis of the wastestream for all pollutants for which authorization to discharge is being requested and a measurement of the daily volume (gallons per day) of wastewaters being discharged.

E. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete.

This section must be signed by the same responsible person who signed the accompanying permit application or certification as per 40 CFR 122.22.

Signature_____

Date_____

August 10, 2011

Mr. Sam Ludwick
City of Warren, WPC
2323 Main Avenue, SW
Warren, OH 44481

Re: Permit 3PE00008

Dear Mr. Ludwick:

Enclosed are two copies of EnviroScience's report for the following whole effluent toxicity (WET) tests that were initiated on July 12, 2011:

(1) 3-brood static, renewal chronic bioassay using *Ceriodaphnia dubia* (water flea), and
(1) 7-day static, renewal chronic bioassay using *Pimephales promelas* (fathead minnow).

The tested concentrations were 10, 20, 40, 80, and 100 percent effluent. Effluent was diluted with synthetic freshwater. The effluent was not shown to be acutely or chronically toxic to the minnows but was shown to be toxic to the water fleas. Endpoints are listed below.

WET endpoints for City of Warren, Ohio WPC 3PE00008, 07/2011
sample collection period: 07/10-15/11

Outfall 001:

C. dubia (flea)	acute	TU_a = AA	(<0.2; <10% affected at 48 hours)
P. promelas (minnow)	acute	TU_a = AA	(<0.2; <10% affected at 96 hours)
C. dubia (flea)	chronic	TU_c = 1.19	(as 100 ÷ IC_{25}; 1.11 as 100 ÷ ChV)
P. promelas (minnow)	chronic	TU_c = AA	(<1.0 as 100 ÷ IC_{25} & 100 ÷ ChV)

Please call me if you have any questions.

Sincerely,

CE Van Voorhis

Courtney E. Van Voorhis, Aquatic Biologist

enclosures

3781 DARROW ROAD, STOW, OHIO 44224
330-688-0111 / TOLL FREE: 800-940-4025 / FAX: 330-688-3858

ES ENVIRO SCIENCE INCORPORATED

RESULTS OF CHRONIC TOXICITY TESTS

3-Brood Renewal - *Ceriodaphnia dubia* (water flea)
7 Day Static Renewal - *Pimephales promelas* (fathead minnow)

Testing period: July 12 - 19, 2011
Sample collection period: July 10 - 15, 2011
Report date: August 10, 2011

Conducted For:

CITY OF WARREN, WPC
2323 Main Avenue, SW
Warren, OH 44481

Ohio EPA Permit No.: 3PE00008

Conducted and Prepared By:

ENVIROSCIENCE, INCORPORATED
3781 Darrow Rd.
Stow, OH 44224
(800) 940-4025

ES ENVIRO SCIENCE INCORPORATED

C E Van Voorhis, Aquatic Biologist

BIOMONITORING REPORT FORM FOR NPDES PERMIT REQUIREMENTS

Table 1. General Information

1. Facility: City of Warren WPC Report date: 08/10/11

2. Address: 2323 Main Avenue SW, Warren, OH 44481

3. Ohio EPA Permit No.: 3PE00008 4. NPDES No.: OH0027987

5. Facility Contact: Sam Ludwick 6. Phone No.: 330-841-2591

7. Testing Lab: EnviroScience, Inc., 3781 Darrow Rd., Stow, OH 44224

8. Laboratory Contact: Courtney Van Voorhis 9. Phone No.: 800-940-4025

10. Receiving Water(s) of Discharge: Mahoning River

11. Outfall(s) Tested: 001

Avg. Daily Flows on Day Sampled - MGD: see Table 2. Sampling Summary. Comments.

12. Current Standard Operating Procedure (SOP) Manual on file with OEPA?

YES/NO: yes If YES, date submitted: 10/2006

For City of Warren WPC:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

_____ _____

Signature Date

_____ _____

Name (typed or printed) Title

Table 4. Summary of toxicity test conditions for chronic testing with *Ceriodaphnia dubia* or *Pimephales promelas*.		
	Ceriodaphnia dubia	*Pimephales promelas*
1. Testing period:	07/12/11-1025 to 07/18/11-0950	07/12/11-1120 to 07/19/11-1045
2. Age and origin of test organisms:	<24 hours, EnviroScience 07/11/11 1200-1600	<24 hours, EnviroScience 07/11/11-1530
3. Test type and duration:	static, daily renewal, until 60% of control specimens produce 3rd brood	static, daily renewal, 7 days
4. Light quality and intensity:	wide spectrum fluorescent/50-100 fc	wide spectrum fluorescent/50-100 fc
5. Photoperiod:	16/8 hours light/dark	16/8 hours light/dark
6. Test solution temperatures °C:	25±1 °C	25±1 °C
7. Feeding regime:	daily: alga *Selenastrum capricornutum* to provide approx. $2.3x10^5$ cells/ml; and 0.1ml YAT	approx. 200-600 newly hatched brine shrimp, *Artemia salina* per vessel twice daily
8. Size of test vessel:	30 ml·plastic cup	600 ml glass beaker
9. Volume and depth of test solutions:	15 ml and 24 mm	250 ml and 4.2 cm
10. No. of test organisms per vessel:	1	10
11. No. of vessels per solution:	10	4
12. Total no. of organisms per solution:	10	40
13. Test concentrations as percent effluent:	10, 20, 40, 80, 100	10, 20, 40, 80, 100
14. Renewal MM/DD-test days:	07/11-0,1; 07/13-2,3; 07/15-4,5	07/11-0,1; 07/13-2,3; 07/15-4,5,6
15. Dilution and primary control water:	moderately hard reconstituted water (MHRW)	moderately hard dilute mineral water (DMW)
16. Secondary control:	moderately hard dilute mineral water (DMW)	moderately hard reconstituted water (MHRW)
17. Aeration:	none needed	none needed
18. Endpoints:	mortality - no movement with gentle prodding (LC_{50}, TU_a): survival and reproduction NOEC; IC_{25}; TU_c	mortality - no movement with gentle prodding (LC_{50}, TU_a); survival and growth NOEC; IC_{25}; TU_c
19. No. of consecutive tests conducted with an alternate source of primary control water:	NA	NA

TABLE 6

Results of a 7-Day *Pimephales promelas* Survival and Growth Test

Conducted 07/12/11 - 07/19/11 Using Effluent from Outfall 001.

Test Solutions	Cumulative Percent Mortality[a] (Cumulative Percent Adversely Affected) Test Day							Dry weight **mg/fish exposed**	
	1	2	3	4	5	6	7	Mean[a]	%CV
Lab water DMW **diluent control**	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (5)	5 (5)	0.467	9.8
Lab water MHRW 2nd control	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0.517	3.7
10% Effluent	0 (0)	0 (0)	2 (2)	2 (2)	2 (2)	2 (2)	2 (2)	0.516	1.5
20% Effluent	0 (0)	0 (0)	0 (0)	2 (2)	2 (2)	5 (5)	5 (5)	0.494	3.4
40% Effluent	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0.490	3.5
80% Effluent	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0.497	10.3
100% Effluent	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (5)	5 (5)	0.527	11.2

LC_{50} Values:	>100	>100	>100	>100	>100	>100	>100	**Acute endpoint, TUa:**
95% Confidence Limits LL								**AA** (<0.2)
95% Confidence Limits UL								
EC_{50} Values:	>100	>100	>100	>100	>100	>100	>100	**Chronic endpoint, TUc:**
95% Confidence Limits LL								**AA** (<1.0 as 100 ÷ IC_{25}; AA as 100 ÷ ChV)
95% Confidence Limits UL								

7-day NOEC for Survival: 100%	7-day NOEC for Growth: 10%	Methods:
7-day LOEC for Survival: >100%	7-day LOEC for Growth: >100%	Shapiro-Wilk's, Bartlett's, Dunnett's, ICp model; ToxStat 3.5.
Chronic Value for Survival: >100%	Chronic Value for Growth: >100%	
IC_{50} (95% C.I.): >100%	IC_{25} (95% C.I.): >100%	

[a] - indicate significant differences from the primary control with an * (α= 0.05).

ATTACHMENTS

Chain-of-Custody/Sample Submission
Bench sheets and data analysis.
Standard Reference Toxicant Control Charts.

TERMS

Acute Toxicity Terms

LC_{50} = median lethal concentration.
A mathematical estimate of the effluent concentration that would kill 50% of the exposed specimens for the specified exposure period.

EC_{50} = median effective concentration.
A mathematical estimate of the effluent concentration that would kill and/or otherwise adversely affect 50% of the exposed specimens for the specified exposure period. Adverse effects include deaths plus specimens exhibiting a behavioral effect such as immobility or atypical swimming posture.

TU_a = Acute Toxicity Unit.
$100 \div LC_{50}$ (or as described in Ohio EPA guidelines for samples with 10% to 45% affected in 100% effluent; e.g., 10% affected = 0.2 TU_a; 15% affected = 0.3 TU_a; 20% affected = 0.4 TU_a ....45% affected = 0.9 TU_a).

Chronic Toxicity Terms

NOEC = No Observed Effect Concentration
Determined by statistical analysis, the highest tested concentration of effluent that was not associated with a statistically significant chronic effect such as reduced survival, reproduction, or growth when compared with a control group.

LOEC = Lowest Observed Effect Concentration
Determined by statistical analysis, the lowest tested concentration that was associated with a statistically significant chronic effect.

Ch V = Chronic Value = square root of NOEC*LOEC

IC_{25} = Inhibition Concentration
Estimate of effluent concentration that would cause a 25% reduction in the measured response (water flea reproduction or fathead minnow growth); computed by linear interpolation.

TU_c = Chronic Toxicity Unit; computed by: 1) $100 \div$ Ch V or
2) $100 \div IC_{25}$.
Methods 1 and 2 for water fleas - report the higher value
Method 2 for fathead minnows

EnviroScience, Inc. Cooler Receipt Form

Client WARREN WPC

ES Sample ID 07111 WARR

Cooler Received by: TM

Date Cooler Received and Opened 07-11-11

Received from: FedEX___ UPS___ Client Drop Off___ ES Courier ✓

1. Were custody seals on the outside of cooler? Yes ✓ No___
   Were custody seals signed, dated and intact? Yes ✓ No___
2. Did Chain of Custody (COC) accompany the samples? Yes ✓ No___
3. Were the COC's signed in the appropriate places? Yes ✓ No___
   If No explain___
4. Was the sample time and date filled in correctly? Yes ✓ No___
5. Sample Temperature upon receipt 1.1 °C
6. Did all sample container labels match the samples written on the COC? Yes ✓ No___
   Were the sample containers in good condition? Yes ✓ No___
7. Was sufficient quantity received to perform indicated tests? Yes ✓ No___
8. Was this sample received within required holding time? Yes ✓ No___

Explain any discrepancies or client notifications that occurred regarding this sample: Jw

ES ENVIRO SCIENCE INCORPORATED
3781 Darrow Road
Stow, Ohio 44224
Phone (330) 688-0111; 1-800-940-4025
Fax (330) 688-3858

EnviroScience, Inc. Cooler Receipt Form

Client WARREN WPC

ES Sample ID 071311 WARR

Cooler Received by: TM

Date Cooler Received and Opened 07-13-11

Received from: FedEX___ UPS___ Client Drop Off___ ES Courier ✓

1. Were custody seals on the outside of cooler? Yes ✓ No___
   Were custody seals signed, dated and intact? Yes ✓ No___
2. Did Chain of Custody (COC) accompany the samples? Yes ✓ No___
3. Were the COC's signed in the appropriate places? Yes ✓ No___
   If No explain___
4. Was the sample time and date filled in correctly? Yes ✓ No___
5. Sample Temperature upon receipt 2.1 °C
6. Did all sample container labels match the samples written on the COC? Yes ✓ No___
   Were the sample containers in good condition? Yes ✓ No___
7. Was sufficient quantity received to perform indicated tests? Yes ✓ No___
8. Was this sample received within required holding time? Yes ✓ No___

Explain any discrepancies or client notifications that occurred regarding this sample: TM

ES ENVIRO SCIENCE INCORPORATED
3781 Darrow Road
Stow, Ohio 44224
Phone (330) 688-0111; 1-800-940-4025
Fax (330) 688-3858

EnviroScience, Inc. Cooler Receipt Form

Client WARREN WPC

ES Sample ID 071511 WARR

Cooler Received by: 07-15-11 / 1530

Date Cooler Received and Opened 07-15-11

Received from: FedEX___ UPS___ Client Drop Off___ ES Courier ✓

1. Were custody seals on the outside of cooler? Yes ✓ No___
   Were custody seals signed, dated and intact? Yes ✓ No___
2. Did Chain of Custody (COC) accompany the samples? Yes ✓ No___
3. Were the COC's signed in the appropriate places? Yes ✓ No___
   If No explain___
4. Was the sample time and date filled in correctly? Yes ✓ No___
5. Sample Temperature upon receipt 1.5 °C
6. Did all sample container labels match the samples written on the COC? Yes ✓ No___
   Were the sample containers in good condition? Yes ✓ No___
7. Was sufficient quantity received to perform indicated tests? Yes ✓ No___
8. Was this sample received within required holding time? Yes ✓ No___

JM

Explain any discrepancies or client notifications that occurred regarding this sample:___

ES ENVIRO SCIENCE INCORPORATED
3781 Darrow Road
Stow, Ohio 44224
Phone (330) 688-0111; 1-800-940-4025
Fax (330) 688-3858

EnviroScience Inc. *Ceriodaphnia dubia* Survival and Reproduction:

Project ID:	WARR
Permit No.:	

Start Date: 071211

Near-Field

Day	Replicate 1	2	3	4	5	6	7	8	9	10	Number Adults	# Dead / # Adverse
1												
2												

20

Day	Replicate 1	2	3	4	5	6	7	8	9	10	Number Adults	# Dead / # Adverse
1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	0 / 0
2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	0 / 0
3	5	5	4	4	5	6	4	4	0	4	10	0 / 0
4	11	11	9	10	10	0	10	0	4	7	10	0 / 0
5	0	0	0	0	0	11	0	9	8	0	10	0 0
6	16	15	14	13	14	14	15	12	14	17	10	0 0
7												
Totals	32	31	27	27	29	31	29	25	26	28	$\bar{x}$ (SD) =	28.5 (2.32)
Number of Broods	3	3	3	3	3	3	3	3	3	3	CV =	8.1

40

Day	Replicate 1	2	3	4	5	6	7	8	9	10	Number Adults	# Dead / # Adversely
1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	0 / 0
2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	0 / 0
3	4	4	5	5	5	7	5	5	6	6	10	0 / 0
4	10	11	10	10	10	0	0	0	10	11	10	0 / 0
5	0	0	0	0	0	11	10	11	0	0	10	0 / 0
6	15	15	14	14	16	15	15	14	15	15	10	0 / 0
7												
Totals	29	30	29	29	31	33	30	30	31	32	$\bar{x}$ (SD) =	30.4 (1.35)
Number of Broods	3	3	3	3	3	3	3	3	3	3	CV =	4.4

EnviroScience Inc. *Ceriodaphnia dubia* **Survival and Reproduction**

Project ID:	WARR
Permit No.:	

Start Date:	071211

Brood Board Information:

Replicate	1	2	3	4	5	6	7	8	9	10	BB #: BB070411 A
	2	6	7	13	25	32	37	43	45	54	Date: 071111
											Time: 1200-1600

Test Information:

Day	Initiation	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
YAT Batch #	YATH 053111	YATH 053111	YATI 053111	YATI 053111	YATI 053111	YATI 053111		
Algae Batch #	ESA 062111	ESA 062111	ESA 062111	ESA 062911	ESA 062911	ESA 062911		
Final °C		24.9	25.2	25.1	25.5	24.9	25.5	
Final °C		24.7	25.1	25.1	25.4	24.8	25.5	
Final °C		24.7	24.9	24.9	25.4	24.7	25.7	
Initial °C	26.0	24.2	24.5	24.2	24.9	24.2		
Change time	1025	1040	1035	1120	1140	0955		
transfer ✔	loaded	✓	✓	✓	✓	✓		
Initials	KH	KR	TM	KR	KR	JA	TM	

Initial is the initiation temperature, or the temperature of the new board the C. dubia are being transferred into.

Comments Section:

Day	Date	Comments	Initials

MHR= Moderately Hard Reconstituted Water, MHR +ST= Moderately Hard Water and Sodium Thiosulfate, NF= Near Field, FF= Far Field, EFFLUENT dilutions expressed as percentage effluent e.g. 100% = 100% Effluent, 80%= 80% Effluent + 20% Dilution Water

Key M=Missing, D=Dead, KIT=Killed in transfer, m=empty, g=gravid, y=eyed, r=releasing, n=Sample number, A=Adversely affected

Title: Warren WPC 071211 C.dubia reproduction; ToxStat 3.5:
File: warrc711 Transform: NO TRANSFORMATION

Steel's Many-One Rank Test - Ho: Control<Treatment

GROUP	IDENTIFICATION	MEAN IN ORIGINAL UNITS	RANK SUM	CRIT. VALUE	DF	SIG 0.05
1	MHR diluent	25.4000				
2	10%	29.6000	123.50	75.00	10.00	
3	20%	28.5000	117.00	75.00	10.00	
4	40%	30.4000	145.00	75.00	10.00	
5	80%	24.6000	96.50	75.00	10.00	
6	100%	8.6000	59.50	75.00	10.00	*

NOEC = 80
LOEC = 100

Critical values are 1 tailed (k = 5)

GRP	IDENTIFICATION	MEAN	SMOOTHED MEAN	CONCENTRATION
1	MHR diluent	25.4000	28.4750	0.0000
2	10%	29.6000	28.4750	10.0000
3	20%	28.5000	28.4750	20.0000
4	40%	30.4000	28.4750	40.0000
5	80%	24.6000	24.6000	80.0000
6	100%	8.6000	8.6000	100.0000

ICp estimate with p = 25 is 84.0547

Bootstrap results using 480 iterations:

Mean = 83.2902 Standard Deviation = 3.8929
95% Confidence Interval: (70.2611 , 87.6615)

GRP	IDENTIFICATION	MEAN	SMOOTHED MEAN	CONCENTRATION
1	MHR diluent	25.4000	28.4750	0.0000
2	10%	29.6000	28.4750	10.0000
3	20%	28.5000	28.4750	20.0000
4	40%	30.4000	28.4750	40.0000
5	80%	24.6000	24.6000	80.0000
6	100%	8.6000	8.6000	100.0000

ICp estimate with p = 50 is 92.9531

Bootstrap estimate did not exist for 3 iterations.
Bootstrap results using 477 iterations:

Mean = 92.9414 Standard Deviation = 2.6552
95% Confidence Interval: (86.8269 , 98.0921)

CV

EnviroScience Inc. *Pimephales promelas* Survival Data; EPA 1000.0: pg. 1 of 2

Project ID:	WARR	**Start Date:**	071211	**Time:**	1120
Permit No.:		**End Date:**	071911	**Time:**	1045
Hatch #:	071111 SVE, 1530 KH, 4F	**Origin:**	ES culture	**Diluent:**	DMW

	Rep	n_i	# of P. promelas Dead / # of P. promelas Adversely Affected							Proportion Surviving	Notes
			1	2	3	4	5	6	7		
DMW	A	10	0/0	0/0	0/0	0/0	0/0	0/0	0/0		
	B	10	0/0	0/0	0/0	0/0	0/0	0/0	0/0		
	C	10	0/0	0/0	0/0	0/0	0/0	0/0	0/0		
	D	10	0/0	0/0	0/0	0/0	0/0	2/2	2/2		
	total %'s										$\bar{x}$=.95
MHR	A	10	0/0	0/0	0/0	0/0	0/0	0/0	0/0		
	B	10	0/0	0/0	0/0	0/0	0/0	0/0	0/0		
	C	10	0/0	0/0	0/0	0/0	0/0	0/0	0/0		
	D	10	0/0	0/0	0/0	0/0	0/0	0/0	0/0		
	total %'s										$\bar{x}$=1.0
10	A	10	0/0	0/0	0/0	0/0	0/0	0/0	0/0		
	B	10	0/0	0/0	0/0	0/0	0/0	0/0	0/0		
	C	10	0/0	0/0	0/0	0/0	0/0	0/0	0/0		
	D	10	0/0	0/0	1/1	1/1	1/1	1/1	1/1		
	total %'s										$\bar{x}$=.98
Near Field	A		/	/	/	/					
	B		/	/	/	/					
	C		/	/	/	/					
	D		/	/	/	/					
	total %'s										

Initial °C	Set up 26.0	24.0	24.0	24.3	24.3	24.0	24.0	—	
Final °C		24.0	25.2	24.5	26.0	24.9	24.6	25.5	
Final °C		24.0	25.1	25.1	25.7	25.1	24.2	25.0	
Final °C		24.0	25.0	25.1	25.5	25.4	24.9	25.0	
Final °C		24.0	25.1	25.6	26.0	25.4	24.9	25.3	
Change time	1120	1140	1150	1245	1220	1050	1055	—	
Initials	Set up KR	TM	KH	KH	KR	JA	JD	TM	
Initials for *n*#	KH						Reviewer pgs 1-2	CW 080411	

Warren WPC 071210 FHM growth mg/fish exposed:

sample	tare weight (g)	total weight (g)	weight fish (mg)	number fish	dry wt. fish (mg)	mean dry wt. (mg)
DMW						
a	1.16803	1.17289	4.86	10	0.48600	
b	1.17141	1.17594	4.53	10	0.45300	
c	1.17280	1.17799	5.19	10	0.51900	
d	1.17612	1.18024	4.12	10	0.41200	0.467 DMW
		sum dry wt.>	18.70			0.046 s.d.
						9.800 C.V.
MHR						
a	1.16341	1.16850	5.09	10	0.50900	
b	1.15846	1.16378	5.32	10	0.53200	
c	1.17652	1.18186	5.34	10	0.53400	
d	1.17099	1.17594	4.95	10	0.49500	0.517 MHR
		sum dry wt.>	20.70			0.019 s.d.
						3.700 C.V.
10% effluent						
a	1.16866	1.17375	5.09	10	0.50900	
b	1.18890	1.19407	5.17	10	0.51700	
c	1.17084	1.17611	5.27	10	0.52700	
d	1.16277	1.16790	5.13	10	0.51300	0.516 10% effluent
		sum dry wt.>	20.66			0.008 s.d.
						1.500 C.V.
20% effluent						
a	1.16219	1.16724	5.05	10	0.50500	
b	1.15852	1.16346	4.94	10	0.49400	
c	1.18251	1.18758	5.07	10	0.50700	
d	1.16615	1.17084	4.69	10	0.46900	0.494 20% effluent
		sum dry wt.>	19.75			0.017 s.d.
						3.400 C.V.
40% effluent						
a	1.22154	1.22657	5.03	10	0.50300	
b	1.17009	1.17513	5.04	10	0.50400	
c	1.15906	1.16394	4.88	10	0.48800	
d	1.17990	1.18457	4.67	10	0.46700	0.490 40% effluent
		sum dry wt.>	19.62			0.017 s.d.
						3.500 C.V.
80% effluent						
a	1.17617	1.18140	5.23	10	0.52300	
b	1.15823	1.16379	5.56	10	0.55600	
c	1.17682	1.18135	4.53	10	0.45300	
d	1.17377	1.17832	4.55	10	0.45500	0.497 80% effluent
		sum dry wt.>	19.87			0.051 s.d.
						10.300 C.V.
100% effluent						
a	1.18162	1.18678	5.16	10	0.51600	
b	1.16431	1.16995	5.64	10	0.56400	
c	1.17991	1.18439	4.48	10	0.44800	
d	1.20746	1.21326	5.80	10	0.58000	0.527 100% effluent
		sum dry wt.>	21.08			0.059 s.d.
						11.200 C.V.

GW

EnviroScience Inc. *Pimephales promelas* Growth Data: pg. 2 of 2

Project ID:	WARR
Permit No.:	

Start Date:	07/21/11

Concentration	Rep. no.	Pan no.	Weight of pan (g)	Total dry wt. (g)	No. fish
80%	A	021	1.17617	1.18140	10
	B	022	1.15823	1.16379	10
	C	023	1.17682	1.18135	10
	D	024	1.17377	1.17832	10
100%	A	025	1.18162	1.18678	9
	B	026	1.16431	1.16995	10
	C	027	1.17991	1.18439	10
	D	028	1.20746	1.21326	9
	A				
	B				
	C				
	D				
Initials		TM	TM	TM	TM

Quality Assurance

					final-initial (g)
Pan Tare	A	029	1.21186	1.21180	0.00006
	B	030	1.19826	1.19821	0.00005
	C	031	1.16528	1.16526	0.00002
	D	032	1.15850	1.15848	0.00002
Initials		TM	TM	TM	CW

S Weight calibrations	S wgt	Date: 07/11/11	S wgt	Date: 07/20/11
	2g	1.99977	2g	1.99984
	1g	1.00009	1g	1.00005
	500mg	0.49993	500mg	0.49998
	100mg	0.10004	100mg	0.10003
Initials		TM		TM

1. pans without fish are dried at 60 °C for 24 hours, and placed in desiccator to cool before they are tared on AND ER-182-A balance
2. pans with fish are dried at 60 °C for 24 hours, and placed in desiccator to cool before weighing on AND ER-182-A balance

Please note time of drying:	Date	Time	Oven °C	By (initials)
Pans w/fish in oven @	071911	1045	87°	TM
Pans w/fish removed @	072011	1110	65°	TM

Pans w/dried fish placed in desiccator immediately upon removal from the drying oven.

Title: Warren WPC 071211 P.promelas Growth; ToxStat 3.5:
File: warrp711 Transform: NO TRANSFORMATION

Dunnett's Test - TABLE 2 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	NUM OF REPS	MIN SIG DIFF (IN ORIG. UNITS)	% OF CONTROL	DIFFERENCE FROM CONTROL
1	DMW diluent	4			
2	10%	4	0.0655	14.0	-0.0490
3	20%	4	0.0655	14.0	-0.0263
4	40%	4	0.0655	14.0	-0.0222
5	80%	4	0.0655	14.0	-0.0292
6	100%	4	0.0655	14.0	-0.0595

GRP	IDENTIFICATION	MEAN	SMOOTHED MEAN	CONCENTRATION
1	DMW diluent	0.4675	0.4985	0.0000
2	10%	0.5165	0.4985	10.0000
3	20%	0.4938	0.4985	20.0000
4	40%	0.4898	0.4985	40.0000
5	80%	0.4967	0.4985	80.0000
6	100%	0.5270	0.4985	100.0000

ICp estimate with p = 25 is > 100.0000

EnviroScience Inc. Chronic Toxicity - Daily Chemistry Bench Sheet for ☒C. dubia or ☐FHM (check one)

Project ID:	W	A	R	R	Permit No.:		Date:	07	12	11

Conductivity µmhos/cm - **INITIAL**

level	0	1	2	3	4	5	6
MHR	309	292	310	319	293	291	
DMW	185	177	182	186	184	188	
10	373	379	375	407	411	388	
20	451	456	447	451	468	475	
40	612	622	601	584	626	643	
80	950	956	883	877	986	970	
100	1126	1124	1019	1021	1162	1172	

please initial and enter "T" and "F" in the appropriate instrument box.

	day→	0	1	2	3	4	5	6
TECH	Initial	JP	KH	KR	JD	JD	JD	
TECH	Final	KH	KR	JP	JD	JD	TM	
DO	830							
	820							
	YSI	1 F	1 F	1 F	1 F	1 F	1 F	
pH	920	1	1	1 F	1 F	1	1	
	2Star	F	F				F	
cond.	160	1	1	1	1	1	1	

Dissolved Oxygen mg/l - **INITIAL**

level	0	1	2	3	4	5	6
MHR	7.8	8.0	8.2	8.3	8.1	8.2	
DMW	7.7	7.9	8.1	8.3	8.1	8.2	
10	7.9	8.0	8.3	8.3	8.2	~~8.3~~ 8.2	
20	7.9	8.0	8.2	8.3	8.1	8.2	
40	7.9	8.1	8.2	8.3	8.1	8.3	
80	7.8	8.1	8.1	8.4	8.4	8.5	
100	8.0	8.0	8.1	8.6	8.6	8.6	

Dissolved Oxygen mg/l - **FINAL**

level	0	1	2	3	4	5	6
MHR	7.8	8.2	8.4	8.1	8.0	7.7	
DMW	8.0	8.1	8.3	8.0	8.0	7.6	
10	7.9	8.2	8.4	8.0	8.1	7.7	
20	7.8	8.2	8.4	8.1	8.2	7.7	
40	7.8	8.2	8.4	8.2	8.2	7.7	
80	7.7	8.2	8.4	8.2	8.1	7.7	
100	7.7	8.3	8.5	8.2	8.2	7.7	

pH s.u. - **INITIAL**

level	0	1	2	3	4	5	6
MHR	7.7	8.1	7.9	7.4	7.4	7.6	
DMW	7.7	7.9	7.7	7.3	7.5	7.5	
10	7.8	8.0	7.8	7.5	7.5	7.5	
20	7.7	7.9	7.7	7.5	7.4	7.5	
40	7.6	7.7	7.6	7.5	7.4	7.5	
80	7.5	7.6	7.5	7.3	7.2	7.3	
100	7.4	7.5	7.4	7.1	7.1	7.2	

pH s.u. - **FINAL**

level	0	1	2	3	4	5	6
MHR	7.5	7.8	8.1	7.8	~~8.0~~ 8.0	8.0	
DMW	7.7	7.9	8.0	7.7	~~8.1~~ 8.0	7.9	
10	7.8	7.9	8.1	8.1	~~8.1~~ 8.2	8.1	
20	7.9	8.0	8.0	8.1	~~8.1~~ 8.1	8.0	
40	8.0	8.1	8.0	8.1	~~8.1~~ 8.2	8.0	
80	8.1	8.2	8.1	8.1	8.3	8.1	
100	8.2	8.2	8.1	8.1	8.3	8.2	

CW080411

CHRONIC BIOASSAY:
INITIAL WATER QUALITY CHECKS (DO, pH, conductivity); CHLORINE, ALKALINITY, HARDNESS DATA.

Project ID: WARR Permit No.: _____
Test Date: 071211

Sample Type: →	EFFLUENT					
EnviroScience No.:→	WARR071111EFF	WARR071311EFF	WARR071511EFF			
D. Oxygen (mg/l-%sat) >4 & <100%?	7.9	8.1	8.6			
pH (s.u) 6-9?	7.5	7.2	7.4			
Conductivity (µmhos/cm)	1102	1017	1177			
Alkalinity (mg/l $CaCO_3$) MDL = 20 mg/l	(4.6) 92	(3.8) 76	(4.2) 84			
Hardness (mg/l $CaCO_3$) MDL = 5 mg/l	(4.6) 184	(4.8) 192	(5.0) 200			
TRC_I (mg/l) <0.02?	<0.02	<0.02	<0.02			
TRC_A (mg/l) <0.02?	—	—	—			
Ammonia as N (mg/L)	—	—	—			
Tech Initials : →	JP	KR	JP			

CV 080411

Methods/Instrumentation :
DO: APHA (1998) 4500-O G, YSI 5100; pH: APHA (1998) 4500-H B, Orion 920A/2Star; Conductivity: APHA (1998) 2510-B, Orion 160; Hardness: APHA (1998) 2340-C; Alkalinity: APHA (1998) 2320-B; Chlorine: APHA (1998) 4500-Cl D, HACH Auto CAT9000

Sample Type: effluent (outfall # if more than one), upstream, downstream (NF, FF), lab water, etc.

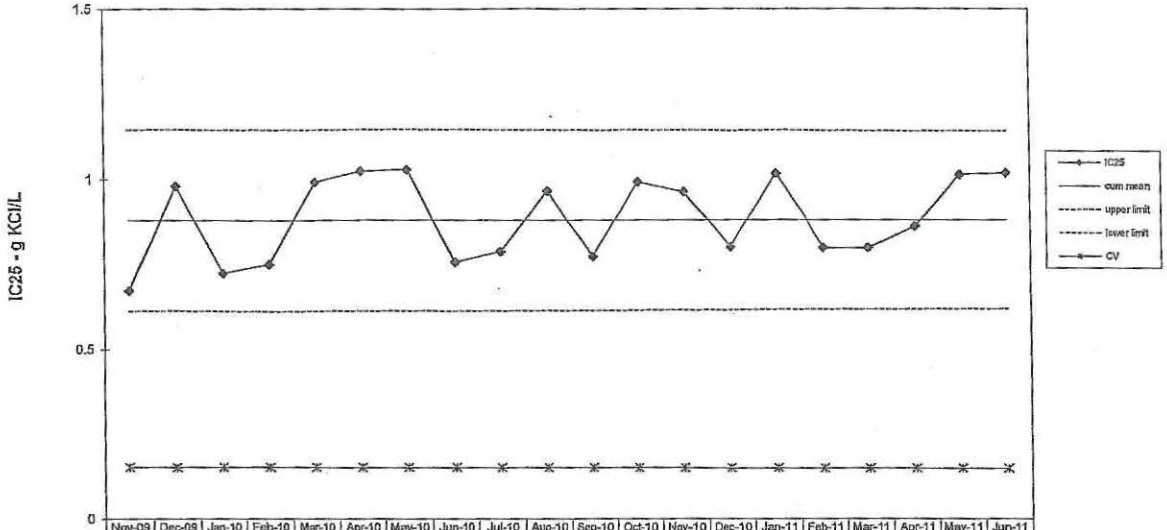
EnviroScience No.: Tracking number from C-O-C (client code+date received+type/outfall/unique #)

Dechlorination procedure:
TRC_I = total residual chlorine, initial value measured prior to dilution or use of sample.
TRC_A = TRC value measured after dechlorination.

Sodium thiosulfate is used to reduce Total Residual Chlorine by dosing with 6.7 mg $Na_2S_2O_3$ per mg TRC.
A 6.7 mg/ml $Na_2S_2O_3$ solution is used; dose mls = X mg/l * liters in sample container being treated.

Comments: Describe dechlorination/pH-adjustments including lot numbers, concentration, volumes of sodium thiosulfate or acid/base solutions and volume of sample treated, preparation of blanks; problems associated with data collection, etc. Initial all entries along with date/time/sample #. Attach additional pages if necessary.

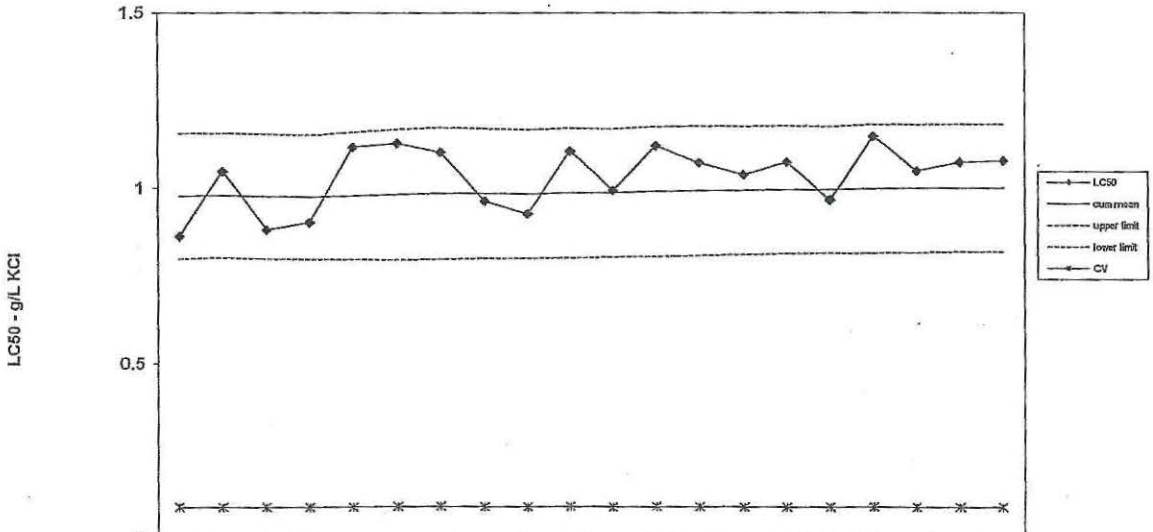
EnviroScience QC Chart - *Pimephales promelas*
Chronic Toxicity Endpoint - Growth IC_{25}



	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11
IC25	0.67281	0.97917	0.72309	0.74876	0.99051	1.02344	1.02894	0.75582	0.78733	0.96448	0.77149	0.99188	0.95241	0.80065	1.0166	0.79801	0.79801	0.86017	1.013	1.01772
cum mean	0.87872	0.87956	0.87626	0.8772	0.87812	0.8793	0.88049	0.8795	0.87878	0.87945	0.87861	0.87948	0.88011	0.87951	0.88054	0.87993	0.87932	0.87918	0.88016	0.88016
upper limit	1.14538	1.14572	1.14484	1.14371	1.14432	1.14569	1.14716	1.14603	1.14474	1.1448	1.14361	1.14419	1.1442	1.14296	1.14405	1.14284	1.14163	1.14054	1.14155	1.14155
lower limit	0.61206	0.61339	0.61169	0.6107	0.61193	0.6129	0.61383	0.61298	0.61281	0.6141	0.61361	0.61477	0.61602	0.61607	0.61702	0.61701	0.61701	0.61762	0.61876	0.61876
CV	0.15173	0.15131	0.15176	0.15191	0.15157	0.15148	0.15143	0.15152	0.15133	0.15086	0.1508	0.15049	0.15003	0.14977	0.14963	0.1494	0.14915	0.14864	0.14849	0.14849

Test Date

EnviroScience QC Chart - *Pimephales promelas*
Chronic Toxicity Endpoint - Survival LC50



	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11
LC50	0.8615	1.0465	0.8805	0.9012	1.1162	1.128	1.1021	0.9529	0.9267	1.105	0.9932	1.12	1.0717	1.0379	1.073	0.9656	1.1473	1.0484	1.074	1.0777
cum mean	0.9765	0.9789	0.9757	0.9734	0.9777	0.9821	0.9855	0.9849	0.9833	0.9865	0.9867	0.9901	0.992	0.9931	0.995	0.9943	0.9977	0.9988	1.0004	1.0004
upper limit	1.1553	1.1564	1.1537	1.1505	1.159	1.1579	1.1731	1.1699	1.1667	1.1717	1.1694	1.1753	1.1767	1.1761	1.1774	1.1748	1.1819	1.1815	1.1824	1.1824
lower limit	0.7978	0.8014	0.7977	0.7962	0.7964	0.7963	0.798	0.8	0.8	0.8014	0.804	0.8048	0.8074	0.8102	0.8126	0.8139	0.8136	0.8161	0.8184	0.8184
CV	0.0915	0.0907	0.0912	0.091	0.0927	0.0946	0.0951	0.0939	0.0932	0.0938	0.0926	0.0935	0.0931	0.0921	0.0916	0.0907	0.0923	0.0914	0.091	0.091

Test Date

Water Pollution Control Department

City of Warren, Ohio

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Mayor

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Director

James Wilden
Superintendent

Greg Lubert
Sewer Systems
Superintendent

Michael T. Welke
Biosolids Manager

Keith Folman
Industrial Pretreatment
Coordinator

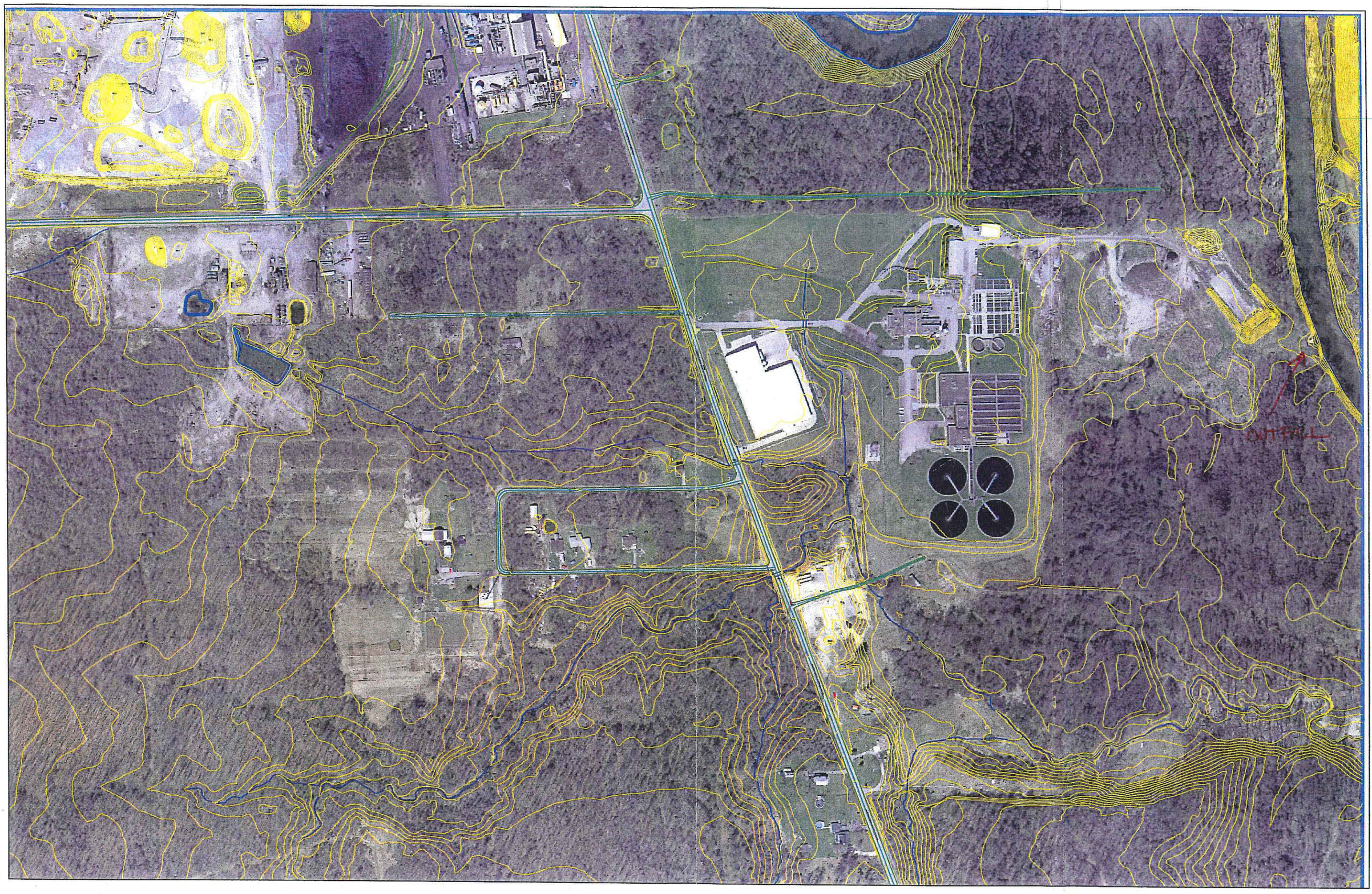
September 15, 2011

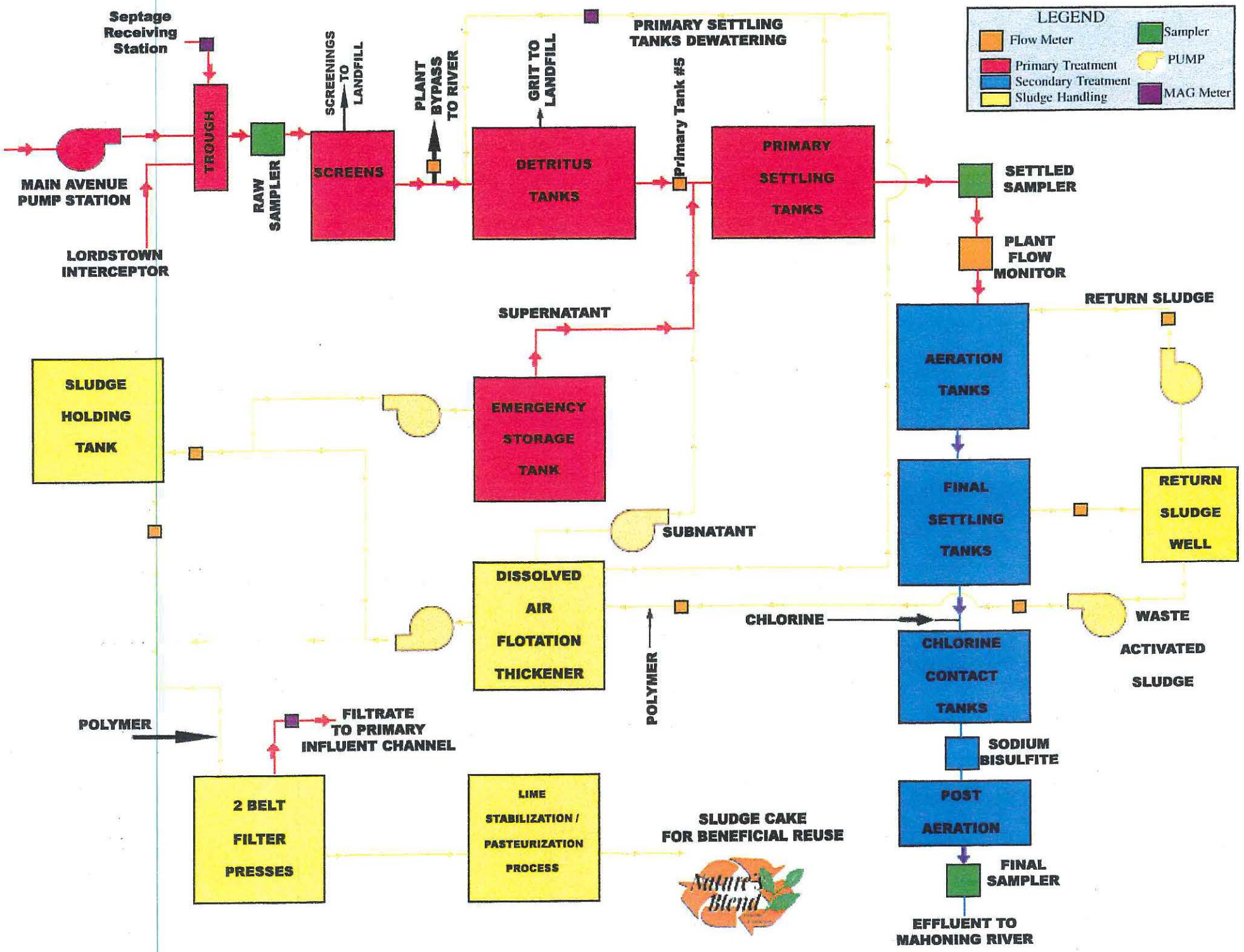
Pollutants Analyzed
BY
Precision Analytical Inc.

Total Cyanide	1/month
Free Cyanide	3/month
Lead	3/month
Selenium	3/month
Thallium	3/month
Mercury	1/month
Low-Level Mercury	2/month
Antimony	1/month

BIOSOLIDS

NH3-N	Cadmium
Chromium	Copper
Mercury	Nickel
Phosphorus	PCB's
Arsenic	Lead
Zinc	Molybdenum
Selenium	Aluminum
Calcium	Iron
Sulfur	


OUTFALL


LEGEND
Flow Meter
Sampler
Primary Treatment
PUMP
Secondary Treatment
Sludge Handling
MAG Meter
Septage Receiving Station
TROUGH
MAIN AVENUE PUMP STATION
LORDSTOWN INTERCEPTOR
RAW SAMPLER
SCREENINGS TO LANDFILL
SCREENS
PLANT BYPASS TO RIVER
GRIT TO LANDFILL
DETRITUS TANKS
PRIMARY SETTLING TANKS DEWATERING
Primary Tank #5
PRIMARY SETTLING TANKS
SETTLED SAMPLER
PLANT FLOW MONITOR
RETURN SLUDGE
AERATION TANKS
SUPERNATANT
SLUDGE HOLDING TANK
EMERGENCY STORAGE TANK
FINAL SETTLING TANKS
RETURN SLUDGE WELL
SUBNATANT
DISSOLVED AIR FLOTATION THICKENER
POLYMER
CHLORINE
WASTE ACTIVATED SLUDGE
CHLORINE CONTACT TANKS
POLYMER
FILTRATE TO PRIMARY INFLUENT CHANNEL
SODIUM BISULFITE
2 BELT FILTER PRESSES
LIME STABILIZATION / PASTEURIZATION PROCESS
SLUDGE CAKE FOR BENEFICIAL REUSE
POST AERATION
FINAL SAMPLER
EFFLUENT TO MAHONING RIVER

CITY OF WARREN WPCF

LOCAL LIMITS & TECHNICAL JUSTIFICATION

July 1, 2011

HAZEN AND SAWYER
Environmental Engineers & Scientists

1.0 INTRODUCTION

On December 1, 2010 the City of Warren Water Pollution Control Facility (WWPCF) received a modified NPDES permit (permit number 3PE00008*MD). This permit contains new effluent limits and water quality based criteria for metals and requires the permittee to evaluate the adequacy of local industrial user limitations (local limits) and provide technical justification for these limits.

Technical Justification is required for Arsenic, Barium, Cadmium, Total Chromium, Dissolved Hexavalent Chromium, Free Cyanide, Copper, Lead, Mercury, Nickel, Selenium, Silver, Strontium, Thallium, Zinc and Total Dissolved Solids. In the event that screening indicates that these pollutants are not present in any significant amounts, a justification is not required.

2.0 BACKGROUND

2.1 Process Description

The City of Warren WPCF is owned and operated by the City of Warren, Ohio. The facility is a secondary treatment plant designed to treat an average daily flow of 16 MGD. Flow entering the plant passes through screens to remove debris and then to a grit removal process. The flow then continues through Primary Settling, Aeration and Final Settling. Effluent is disinfected by chlorine followed by de-chlorination prior to discharge to the Mahoning River. Primary and Secondary sludges are thickened and stored in a holding tank. The sludge is then dewatered and converted to Class A biosolids by processing in thermo blenders (with lime) and a pasteurization vessel.

2.2 Warren WPCF Sampling Summary

The staff of the Warren WPCF performs routine sampling of the Influent, Effluent and Sludge to fulfill permitting and process control requirements. Table 1 summarizes the average, maximum and minimum Influent metals concentrations for the years 2008 - 2010. There were numerous data values less than detection. For parameters where there was a combination of measurable data and less than detection, ½ detection limit was used to determine the average.

TABLE 1
SUMMARY OF INFLUENT METALS CONCENTRATIONS

Pollutant	Average	Maximum	Minimum
Arsenic, ug/L	-	-	-
Barium, ug/L	-	-	-
Cadmium, ug/L	0.53	4.0	<.5
Chromium, ug/L	5.8	24	<5
Chromium, Hex, ug/L.	1.67	2	<2
Copper, ug/L	25.6	84	<10
Free Cyanide, mg/L	15.6	180	<10
Lead, ug/L	3.0	12.5	<5
Mercury, ng/L	28.05	179	<0.2
Molybdenum, ug/L	-	-	-
Nickel, ug/L	31.3	121	<5
Selenium, ug/L	9.9	39.6	<10
Silver, ug/L	-	-	-
Strontium, ug/L	-	-	-
Thallium, ug/L	<10	<10	<10
Zinc, ug/L	98.8	313	<10
TDS, mg/L	-	-	-

Note: Averages for parameters which had actual values and less than values were calculated with the less than detection equal to ½ the detection limit

Table 2 summarizes the effluent characteristics for the same three (3) year time period. Many parameters yielded numerous less than detection results with the exception of nickel, zinc and mercury. All 36 measured values for Hexavalent Chromium, Copper, Cadmium, Lead, Free Cyanide, Thallium and Antimony were less than detection. Total Chromium had only one (1) measurable result, while Copper and Selenium had only four (4). Where data indicated results less than detection, ½ the detection limit was used to determine the average. The data summarized in Tables 1 and 2 were also used to determine plant removal efficiencies.

TABLE 2
SUMMARY OF EFFLUENT METALS CONCENTRATIONS

Pollutant	Average	Maximum	Minimum
Arsenic, ug/L	-	-	-
Barium, ug/L	-	-	-
Cadmium, ug/L	0.35	2.0	<0.5
Chromium, ug/L	2.6	6.0	<5
Chromium, Hex, ug/L.	1.1	2.0	<2
Copper, ug/L	6.6	27.0	<10
Free Cyanide, mg/L	<10	<10	<10
Lead, ug/L	<5	<5	<5
Mercury, ng/L	3.79	18.6	<0.2
Molybdenum, ug/L	-	-	-
Nickel, ug/L	12.9	55	<5
Selenium, ug/L	6.7	26.9	<10
Silver, ug/L	-	-	-
Strontium, ug/L	-	-	-
Thallium, ug/L	5.37	18.4	<10
Zinc, ug/L	24.3	73	<10
TDS, mg/L	-	-	-

Note: Averages for parameters which had actual values and less than values were calculated with the less than detection equal to ½ the detection limit

Table 3 summarizes the results of metals analyses for land applied sludge for the year 2010. All sludge concentrations for the period were well below the 40 CFR Part 503 Table 1 Ceiling Concentration and Table 3 Application Rates. In the past year, the Warren WPCF has produced an average of 0.121 MGD of sludge to disposal with percent total solids of 12.4%.

The results of domestic collection system sampling events are summarized in Table 4. Domestic system samples for Barium, Strontium and Total Dissolved Solids were only collected in 2010.

TABLE 3
SUMMARY OF SLUDGE TO DISPOSAL BY LAND APPLICATION – 2010

Parameter	Maximum	Minimum	Average
As, mg/Kg	7.26	1.02	4.58
Cd, mg/Kg	AA	AA	AA
Cu, mg/Kg	124	34.6	94
Pb, mg/Kg	63	8.68	30.2
Ni, mg/Kg	71.1	9.01	31.8
Zn, mg/Kg	467	93.5	309
Se, mg/Kg	37.6	1.14	16.4
Hg, mg/Kg	0.984	0.147	0.48
Mo, mg/Kg	30.6	4.68	15.5
% Total Solids	41.7	35.9	38.6

TABLE 4
SUMMARY OF DOMESTIC COLLECTION SYSTEM SAMPLING

Parameter, ug/L	Hollywood	Belvedere	Westwood	Average
Arsenic	<10	<10	<10	<10
Barium	31.5	21.5	24.5	24.9
Cadmium	<10	<10	<10	<10
Chromium	<10	5.6	<10	5.3
Chromium, Hex.	6.0	11.8	17.5	10.3
Copper	27.9	26.1	31.6	27.8
Cyanide, Free	<10	<10	<10	<10
Lead	6.7	6.4	8.5	6.8
Nickel	10.1	<10	<10	7.1
Mercury, ng/L	<0.2	<0.2	<0.2	<0.2
Molybdenum	<10	<10	<10	<10
Selenium	<10	<10	<10	<10
Silver	<10	<10	<10	<10
Strontium	153.5	165	166	136.7
Thallium	<10	<10	<10	<10
Zinc	84.6	88.5	85	86.3
Total Diss. Solids, mg/L	308	572	462	432.6

Averages for parameters with a combination of less than detection and actual values were calculated using ½ the detection limit

3.0 LOCAL LIMITS TECHNICAL DEVELOPMENT

This document summarizes the information utilized in evaluating and modifying the local limits for the Industrial Users of the City of Warren WPCFC. The USEPA Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program was utilized to determine the Maximum Allowable Headworks Loadings (MAHL). The Local Limits were calculated by allowing for domestic background and a 20% safety factor and distributing the remaining load among the contributing permitted industries.

The primary goal of the Warren WPCFC Municipal Industrial Pretreatment Program is to protect the facility from the adverse impact that can occur when toxic wastes are discharged into the collection system. This protection is achieved by regulating non-domestic wastes that may contain toxic compounds or unusually high concentrations of conventional wastes. The development of Local Discharge Limits ensures that the Industrial Users of the system will meet all the general and specific discharge prohibitions specified by the City.

In order to develop the Local Limits for the Industrial Users, Maximum Allowable Headworks Loadings (MAHL) had to be calculated for each parameter. Determination of the MAHL ensures that the WWPCF will not violate the NPDES permit, violate Title 40 CFR Part 503 sludge disposal regulations, compromise the water quality of the Mahoning River, or experience process failure due to the inhibition of the biological processes of the plant.

Before the MAHL can be calculated, plant flows, industrial flows, limiting criteria, plant removal efficiencies and non-industrial loadings had to be determined. The flow values used to determine the local limits were based on flow monitoring which is performed by plant staff on a routine basis. It has been determined that current influent flow of the facility is approximately 14.6 MGD and of that, 1.256 MGD is Industrial Process flow and 13.38 MGD is Domestic Flow. Table 6 summarizes the flow for each Industrial User. Table 7 summarizes the NPDES Permit Requirements outlined in Permit No.3PE00008*MD, the applicable 40 CFR Part 503 Sludge Disposal Criteria and the literature values for Process Inhibition. The NPDES Permit did not specify discharge limits or wasteload allocation (WLA) values for Barium, Strontium or Total Dissolved Solids. A separate calculation was performed to obtain WLA values that could be used in the MAHL calculations for these parameters.

Plant Removal efficiencies were calculated for the facility using NPDES Permit data for the past three years. Some of the sampling results were determined by the contract laboratory to have pollutant levels below the detection limit and therefore were not acceptable for calculating removal efficiencies. Therefore, USEPA literature values found in The Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program were used for those calculations. Table 8 summarizes the Removal Efficiency data.

TABLE 6
CITY OF WARREN WPCFC
AVERAGE INDUSTRIAL FLOWS

Industry Name	Flow (MGD)
Novelis	.0415
BFI Medical Watse	.0120
GE Ohio Lamp	.0095
GM Lordstown	.5378
Arcelormittal	.3090
Packard Electric	.2440
Taylor Coil	.0005
Warren Steel Specialties	.0004
Wheatland Tube	.0013
Patriot Water	.1000
Total	**1.256**

Average Domestic Flow: 13.38

Plant Flow: 14.6 MGD

TABLE 7
LOCAL LIMITS CRITERIA

Pollutant	NPDES Permit Requirement* ug/L	Table 1 40 CFR 503 Sludge Criteria mg/kg	Table 3 40 CFR 503 Sludge Criteria Mg/kg	Process Inhibition mg/L
Arsenic	680	75	41	0.10
Barium	1,798,000	-	-	-
Cadmium*	2.3	85	39	1.00
Chromium*	688	-	-	1.00
Chromium, Hex.	31	-	-	1.00
Cyanide, Free	86	-	-	0.10
Copper	40	4300	1500	1.00
Lead	19	840	300	1.0
Mercury	.012	57	17	0.10
Molybdenum	-	75	-	-
Nickel*	406	420	420	1.00
Selenium	24	100	100	-
Silver*	5.5	-	-	0.25
Strontium^	46,118,000	-	-	
Thallium^	84	-	-	
Zinc	346	7500	2800	1.0
TDS, mg/L^	9,665	-	-	-

* Or wasteload allocation value designated by NPDES Permit [Part II CC (4)] for Local Limit Development

^ Wasteload Allocation values were calculated based on information from the NPDES Permit Fact Sheet

TABLE 8
REMOVAL EFFICIENCIES

Pollutant	USEPA Primary Removal Efficiency Used %	Observed Plant Removal Efficiency %	USEPA Plant Removal Efficiency %	Plant Removal Efficiency Used %
Arsenic	-	-	45	45
Barium	-	-	-	0
Cadmium	15	70.8	67	67
Chromium	27	79	82	82
Chromium, Hex.	-	50	-	50
Copper	22	73.5	86	73.8
Cyanide, Free	-	85.4	69	69
Lead	57	78.3	61	61
Mercury	10	80.4	60	80.4
Molybdenum	-	-	-	40
Nickel	14	61.9	42	61.9
Selenium	-	64.2	50	64.2
Silver	20	-	75	75
Strontium	-	-	-	0
Thallium	-	-	-	40
Zinc	27	72.9	79	72.9
TDS	0	0	0	0

4.0 MAXIMUM ALLOWABLE HEADWORKS LOADING CALCULATIONS

The Maximum Allowable Headworks Loadings (MAHL) were calculated using the formulas provided in the Ohio EPA Pretreatment Program: Local Limits Guidance.

4.1 NPDES Permit

The MAHL determined for the facility based on NPDES Permit Limits and a plant flow of 14.64 MGD are outlined in Table 9 below. Parameters not specified by the NPDES Permit are not listed in Table 9.

TABLE 9
CALCULATION OF MAHL BASED ON NPDES PERMIT LIMITATIONS

Pollutant	NPDES Permit* mg/L	Removal Rate %	MAHL Limitation lbs/day
Arsenic	0.68	45.0	150.9
*Barium^*	1798	0	219,531
Cadmium	0.0023	67.0	0.851
Chromium	0.688	82.0	466.7
Chromium, Hex.	0.031	50.0	7.57
Copper	0.04	73.8	18.6
Cyanide, Free	0.024	69.0	9.45
Lead	0.019	61.0	5.95
Mercury	0.000012	80.4	0.0075
Molybdenum	-	-	-
Nickel	0.406	61.9	130.1
Selenium	0.024	64.2	8.18
Silver	0.0055	75.0	2.69
*Strontium^*	46,118	0	5,630,897
Thallium	0.084	40.0	17.09
Zinc	0.346	72.9	155.9
*TDS^*	9,665	0	1,180,073

*Or wasteload allocation value designated by NPDES Permit for Local Limit Development [Part II CC (4)]

^ Wasteload Allocation values were calculated based on information from the NPDES Permit Fact Sheet

4.2 Sludge Disposal Criteria

The MAHL values determined for the facility based on Sludge Disposal Criteria, sludge to disposal flow of 0.121 MGD and percent solids of 12.4% are outlined in Table 10. Parameters not specified by the Sludge Regulations are not listed in Table 10.

TABLE 10
CALCULATION OF MAHL BASED ON SLUDGE DISPOSAL CRITERIA

Pollutant	Pollutant Concentration mg/Kg	Removal Rate %	Sludge Disposal MAHL lbs/day
Arsenic	41	45	11.4
Cadmium	39	67	7.28
Copper	1500	73.8	254.3
Lead	300	61.0	61.54
Mercury	17	80.4	2.64
*Molybdenum**	75	40.0	23.46
Nickel	420	61.9	84.90
Selenium	100	64.2	19.49
Zinc	2800	72.9	480.6

*Ceiling Concentration Value (40 CFR Part 503 Table1)

4.3 Process Inhibition

The MAHL values determined based on Process Inhibition and plant flow of 14.64 MGD are outlined in Table 11. Parameters with no known Inhibition value are not listed in Table 11.

TABLE 11
CALCULATION OF MAHL BASED ON
ACTIVATED SLUDGE PROCESS INHIBITION

Pollutant	Inhibition Levels mg/L	Removal Rate %	Activated sludge MAHL lbs/day
Arsenic	0.1	0	12.21
Cadmium	1	15	143.6
Chromium	1	27	167.3
Chromium, Hex.	1	0	122.1
Copper	1	22	156.5
Cyanide, Free	0.1	0	12.21
Lead	1	57	283.9
Mercury	0.1	10	13.57
Nickel	1	14	141.9
Silver	0.25	20	38.16
Zinc	1	27	167.2

4.4 MAHL Comparison

A summary of all MAHL values determined for the facility are outlined in Table 12. The most restrictive of these values is bolded and will be used to determine the Allowable Industrial Loadings.

TABLE 12
COMPARISON OF MAHL CALCULATIONS
Lbs/day

Pollutant	Final Pass-through Loading	Final Inhibition Loading	Final Sludge Loading
Arsenic	150.9	12.21	**11.4**
Barium	**219,531**	-	-
Cadmium	**0.851**	143.6	7.28
Chromium	466.7	**167.3**	-
Chromium, Hex.	**7.57**	122.1	-
Copper	**18.64**	156.5	254.3
Cyanide, Free	**9.45**	12.21	-
Lead	**5.95**	283.9	61.54
Mercury	**0.0075**	13.57	2.64
Molybdenum	-	-	**23.46**
Nickel	130.1	141.9	**84.9**
Selenium	**8.18**	-	19.49
Silver	**2.69**	38.16	-
Strontium	**5,630,897**	-	-
Thallium	**17.09**	-	-
Zinc	**155.9**	167.2	480.6
TDS	**1,180,073**	-	-

5.0 DATA EVALUATION

As shown in Table 12, the calculated MAHL's show 13 parameters controlled by the NPDES Permit criteria: Barium, Cadmium, Hexavalent Chromium, Copper, Free Cyanide, Lead, Mercury, Selenium, Silver, Strontium, Thallium, Zinc and Total Dissolved Solids. Three (3) metals are controlled by sludge based criteria: Arsenic, Molybdenum, and Nickel. Only Chromium is limited by Inhibition.

Table 13 summarizes the average and maximum effluent data for the period of 2008 – 2010 as compared to the NPDES Permit discharge limitations. As indicated by the Effluent data, there are no parameters which indicate a problem. Only two (2) parameters, Mercury and Selenium, had maximum data values that exceeded the permit values. There were two (2) occurrences of each and both were in 2008. The City of Warren was not previously required to sample the Effluent for Arsenic, Barium, Silver, Strontium or Total Dissolved Solids, therefore, there was no data available to compare. All other parameters were consistently less than detection.

TABLE 13
COMPARISON OF NPDES PERMIT LIMITS TO EFFLUENT DATA

Pollutant	NPDES Permit Limit* ug/L	Effluent Average ug/L	Effluent Maximum ug/L	Parameter of Concern?
Arsenic	680	-	-	-
Cadmium	2.3	0.35	2	No
Chromium	688	2.6	6	No
Chromium, Hex.	31	1.06	2	No
Copper	40	6.6	27	No
Cyanide	24	5.0	5.0	No
Lead	19	2.5	2.5	No
Mercury	0.012	0.0038	0.019	No
Nickel	406	12.9	55	No
Selenium	24	6.7	26.9	No
Silver	5.5	-	-	-
Thallium	84	5.0	5.0	No
Zinc	346	24.3	73	No

* Or value designated by NPDES Permit [Part II CC (4)] for Local Limit Development

A comparison of the Sludge Disposal Criteria and Actual reported values for the 2007 and 2008 Disposal years are summarized in Table 14. None of the pararneters indicate an issue with regards to current Sludge Disposal Criteria.

TABLE 14
COMPARISON OF REPORTED SLUDGE DATA TO SLUDGE DISPOSAL CRITERIA

Parameter	Disposal Criteria mg/kg	Average Disposal Data mg/kg	Maximum Disposal Data mg/kg	Pollutant of Concern?
Arsenic	41	4.58	7.3	No
Cadmium	39	AA	AA	No
Copper	1500	94	124	No
Lead	300	30.2	63	No
Nickel	420	31.8	71.1	No
Zinc	2800	309	467	No
Selenium	100	16.4	37.6	No
Mercury	17	0.48	0.984	No
Molybdenum	75	15.5	30.6	No

Table 15 shows a comparison of the calculated Influent Loadings compared to the Maximum Allowable Headwork Loadings (MAHL) shown in Table 12. The Influent Loadings were calculated using a flow value of 14.64 MGD and the Influent NPDES data for the years 2008 through 2010. For parameters where the majority of data was reported as less than detection, ½ the detection limit was used to calculate an estimated loading value. The City of Warren was not required by the NPDES Permit to monitor for Arsenic, Barium, Molybdenum, Silver, Strontium or Total Dissolved Solids; therefore there was no data to use for comparison. All other loadings are well below the calculated MAHL.

TABLE 15
COMPARISON OF INFLUENT LOADINGS TO MAHL

Parameter	Influent Concentration ug/L	Influent Loading ppd	MAHL ppd	Concern?
Arsenic	-	-	11.4	-
Barium	-	-	219,531	-
Cadmium	0.5	0.065	0.85	No
Chromium	5.8	0.708	167.3	No
Hex. Chromium	1.7	0.204	7.6	No
Copper	25.6	3.12	18.6	No
Cyanide	15.6	1.9	9.4	No
Lead	3.0	0.366	5.9	No
Mercury	0.28	0.00342	0.0075	No
Molybdenum	-	-	23.5	-
Nickel	31.3	3.82	84.9	No
Selenium	9.9	1.21	8.2	No
Silver	-	-	2.7	
Strontium	-	-	5,630,897	-
Thallium	5	0.61	17.1	No
Zinc	98.8	12.06	155.9	No
TDS	-	-	1,180,073	-

In summary, the data indicates that all parameters are well below NPDES Permit requirements and sludge disposal criteria. In addition, influent concentration and loadings are also well within the calculated MAHL's.

6.0 ALLOCATION OF ALLOWABLE INDUSTRIAL LOADING

Table 16 summarizes the Industrial User discharge flow (MGD) associated with each parameter.

Local limits will be issued to the industries whose sampling has revealed the parameters of concern are in their discharge or required by a Categorical Standard. All other industrial users will be expected to discharge these parameters at domestic levels.

After determining the MAHL, the Domestic Loading and a 20% safety factor are subtracted off. The resulting value is the Allowable Industrial Load. The Domestic Background Loadings were determined using the non-industrial flow and the results of collection system sampling performed by the City.

The Allowable Industrial Load can be allocated by four (4) different methods: Uniform Concentration Using Total Industrial Flow, Uniform Concentration Using Contributory Flow, Mass Proportion, and Selected Industrial Reduction. The City of Warren chose to allocate the Industrial Loadings using the Contributory Flow Method. The industries not identified as discharging the parameters were included in the domestic flow while performing the contributory flow method.

Table 17 summarizes the determination of the Allowable Industrial Load, the Industrial User Allocation, the Local Limit calculation, the current Local Limits and the Proposed Local Limit Values. There are four (4) parameters that resulted in new Local Limit values lower than those currently in Ordinance. These include: Cadmium, Lead, Mercury and Silver. Since the data for these parameters did not show any areas of concern, it is recommended to continue the current Local Limits values. Local Limits were not developed for Antimony since this was not required by the NPDES Permit. However, the City of Warren will continue to use the current Local Limit where deemed appropriate.

Local Limit values were developed for Barium, Strontium and TDS based on Water Quality Standards and information obtained from the Fact Sheet which accompanied the NPDES Permit. The necessity of Local Limits for these parameters arose due to the acceptance of "brine" water from Patriot. The results of a pilot study performed prior to acceptance of the "brine" water indicated a maximum flow or 100,000 gpd and TDS of 50,000 ppm would not impact the plant. Therefore, Patriot will be issued a limit of 50,000 ppm while all other uses will monitor for Total Dissolved Solids. As more data is gathered, these parameters will be re-evaluated to determine if changes to local limits are needed.

The results of the local limit determination will be used to issue Industrial User Discharge Permits to the Industries. These values will be issued as daily maximum discharge limitations for end of pipe waste streams. Some of the users are categorical users, therefore, the local limits will have to be compared to the Categorical Standards and the more restrictive value will be issued in the permit. In some instances, Categorical Users will have two monitoring locations, end of process (Categorical Standards) and end of pipe (Local Limits). Industrial Users not assigned a discharge limitation for any parameter will be required by the Industrial User Discharge Permit to discharge within the specified domestic levels.

TABLE 16
INDUSTRIAL DISCHARGES ABOVE DOMESTIC BACKGROUND, MGD

	Novelis	Packard Electric	GM Lordstown	GE Ohio Lamp	Mittal Coke	Wheatland Tube	Warren Steel Specialties	Taylor Coil	BFI Medical	Patriot	**Total**
Antimony								0.0005	0.012	0.1	**0.1125**
Arsenic	0.0415				0.309					0.1	**0.4505**
Barium	0.0415	0.244	0.538	0.0095	0.309	0.0013	0.0004	0.0005	0.012	0.1	**1.2562**
Cadmium		0.244	0.538	0.0095			0.0004	0.0005		0.1	**0.8924**
Chromium	0.0415	0.244	0.538	0.0095	0.309	0.0013	0.0004	0.0005		0.1	**1.2442**
Hex. Chrom.	0.0415			0.0095	0.309			0.0005			**0.3605**
Copper	0.0415	0.244	0.538	0.0095	0.309	0.0013	0.0004	0.0005	0.012	0.1	**1.2562**
Cyanide, Free	0.0415	0.244	0.538	0.0095	0.309	0.0013	0.0004	0.0005			**1.1442**
Lead		0.244	0.538	0.0095			0.0004	0.0005	0.012	0.1	**0.9044**
Mercury	0.0415				0.309				0.012	0.1	**0.4625**
Molybdenum	0.0415			0.0095				0.0005	0.012		**0.0635**
Nickel		0.244	0.538	0.0095	0.309	0.0013	0.0004	0.0005	0.012	0.1	**1.2147**
Selenium					0.309						**0.309**
Silver		0.244	0.538	0.0095			0.0004	0.0005		0.1	**0.8924**
Strontium	0.0415	0.244	0.538	0.0095	0.309	0.0013	0.0004	0.0005	0.012	0.1	**1.2562**
Zinc	0.0415	0.244	0.538	0.0095	0.309	0.0013	0.0004	0.0005	0.012	0.1	**1.2562**
TDS	0.0415	0.244	0.538	0.0095	0.309	0.0013	0.0004	0.0005	0.012	0.1	**1.2562**

TABLE 17
Conservative Parameter Allocation
Using Contributory Flow Method

Pollutant	Max. Allowable HW. Loading lbs/day	Domestic Flow MGD	Domestic Loading lbs/day	Safety Factor 20%	Allowable Ind. Loading lbs/day	Contributory Ind. Flow MGD	Calculated Local Limit mg/L	Current Local Limit mg/L	Proposed Local Limit mg/L
Antimony								0.329	0.329
Arsenic	11.4	14.19	0.59	2.28	8.529	0.451	2.3	0.2	0.2
Barium	219,531	13.384	2.78	43,906	175,622	1.256	16,763	-	M
Cadmium	0.85	13.748	0.57	0.17	0.108	0.892	0.014	1.95	1.95
Chromium	167.3	13.396	0.56	33.45	133.247	1.244	12.8	1.5	1.5
Chromium, Hex.	7.57	14.28	1.23	1.51	4.829	0.361	1.6	1.4	1.4
Copper	18.64	13.384	3.1	3.73	11.81	1.256	1.1	0.83	0.83
Cyanide, Free	9.45	13.496	0.56	1.89	6.999	1.144	0.73	0.335	0.335
Lead	5.95	13.736	0.78	1.19	3.98	0.904	0.53	0.89	0.89
Mercury	0.0075	14.178	0.0118	0.0015	-0.0058	0.463	-0.002	0.0035	0.0035
Molybdenum	23.46	14.577	0.61	4.69	18.162	0.064	34.3	0.699	0.699
Nickel	84.9	13.425	0.79	16.98	67.129	1.215	6.6	1.8	1.8
Selenium	8.19	14.331	0.6	1.64	5.951	0.309	2.3	1.47	1.47
Silver	2.69	13.748	0.57	0.54	1.576	0.892	0.21	1.2	1.2
Strontium	5,630,897	13.384	15.29	1,126,179	4,504,702	1.256	429,973	-	M
Thallium	17.09	13.748	0.57	3.42	13.102	0.892	1.8	-	M
Zinc	155.9	13.384	9.6	31.18	115.111	1.256	11.0	1.21	1.21
TDS	1,180,073	13.384	48,287	236,015	895,771	1.256	85,501	-	50,000/M

M – All Industrial Users will monitor. A limit of 50,000 mg/L for TDS will be issued to Patriot, all other users will monitor

CALCULATION INPUT DATA

Input Data

Facility Name: Warren WPC
Address:

Contact:
Phone:

Flow information:

Plant Average Flow, MGD:	14.64	*Sludge to Disposal, MGD:*	0.1210
Industrial Flow, MGD:	1.256	*Sludge to Disposal Percent Solids:*	12.40%
Domestic Flow, MGD:	13.38	*Annual Dry Tons Sludge Applied:*	
		Dry Tons per Day:	0.00

Input Data

Pollutant	Average Influent mg/L	Average Effluent mg/L	Average Domestic mg/L	NPDES Monthly Limit mg/L	Sludge to Disposal mg/kg	Ceiling Conc. 503 Table 1 mg/kg	Application 503 Table 3 mg/kg
Antimony	0.005	0.011	0.005	-	-	-	-
Arsenic	-	-	0.005	0.68	4.58	75	41
Barium	-	-	0.0249	1798	-	-	-
Cadmium	0.00053	0.00035	0.005	0.0023	AA	85	39
Chromium	0.0058	0.0026	0.005	0.688	-	-	-
Chromium, Hex.	0.00167	0.00106	0.0103	0.031	-	-	-
Copper	0.0256	0.0066	0.0278	0.04	94	4300	1500
Cyanide, Free	0.0156	0.005	0.005	0.024	-	-	-
Lead	0.003	0.0025	0.0068	0.019	30.2	840	300
Mercury	0.000028	3.79E-06	0.0001	0.000012	0.48	57	17
Molybdenum	-	-	0.005	-	15.5	75	-
Nickel	0.0313	0.0129	0.0071	0.406	31.8	420	420
Selenium	0.0099	0.0067	0.005	0.024	16.4	100	100
Silver	-	-	0.005	0.0055	-	-	-
Strontium	-	-	0.137	46118	-	-	-
Thallium	0.005	0.005	0.005	0.084	-	-	-
Zinc	0.0988	0.0243	0.086	0.346	309	7500	2800
TDS	-	-	432.6	9665	-	-	-

When domestic sampling indicated BDL, 1/2 reported detection limit was used

Input Data

Pollutant	Activated Sludge Inhibition mg/L	Plant Influent mg/L	Inhibition Value Used mg/L	Removal Efficiency Primary* %	Removal Efficiency Plant %	Removal Efficiency Literature %	Removal Efficiency Used %	Safety Factor %
Antimony		0.005	-	0.0%	-	-	50.0%	20.0%
Arsenic	0.10	-	0.1	0.0%	-	45.0%	45.0%	20.0%
Barium	-	-	-	0.0%	0.0%	0.0%	0.0%	20.0%
Cadmium	1.00	0.00053	1	15.0%	70.8%	67.0%	67.0%	20.0%
Chromium	1.00	0.0058	1	27.0%	79.0%	82.0%	82.0%	20.0%
Chromium, Hex.	1.00	0.00167	1	0.0%	50.0%	-	50.0%	20.0%
Copper	1.00	0.0256	1	22.0%	73.8%	86.0%	73.8%	20.0%
Cyanide, Free	0.10	0.0156	0.1	0.0%	85.4%	69.0%	69.0%	20.0%
Lead	1.00	0.003	1	57.0%	78.3%	61.0%	61.0%	20.0%
Mercury	0.10	0.000028	0.1	10.0%	80.4%	60.0%	80.4%	20.0%
Molybdenum	-	-	-	0.0%	-	-	40.0%	20.0%
Nickel	1.00	0.0313	1	14.0%	61.9%	42.0%	61.9%	20.0%
Selenium	-	0.0099	-	0.0%	64.2%	50.0%	64.2%	20.0%
Silver	0.25	-	0.25	20.0%	-	75.0%	75.0%	20.0%
Strontium	-	-	-	0.0%	0.0%	0.0%	0.0%	20.0%
Thallium	-	0.005	-	0.0%	-	-	40.0%	20.0%
Zinc	1	0.0988	1.000	27.0%	72.9%	79.0%	72.9%	20.0%
TDS				0.00%	0.00%		0.00%	20.00%

*USEPA Literature values

Calculation of Sludge Disposal Headworks Loading Limitations (lbs/day)

POTW Name: Warren WPC

Pollutant	Pollutant Concentration mg/kg	Removal Rate %	Sludge Flow MGD	Percent Solids %	Sludge Disposal MAHL lbs/day
Antimony	-	50.0%	0.121	12.4%	-
Arsenic	41	45.0%	0.121	12.4%	11.4010
Barium	-	0.0%	0.121	12.4%	-
Cadmium	39	67.0%	0.121	12.4%	7.2839
Chromium	-	82.0%	0.121	12.4%	-
Chromium, Hex.	-	50.0%	0.121	12.4%	-
Copper	1500	73.8%	0.121	12.4%	254.3361
Cyanide	-	69.0%	0.121	12.4%	-
Lead	300	61.0%	0.121	12.4%	61.5410
Mercury	17	80.4%	0.121	12.4%	2.6459
*Molybdenum**	75	40.0%	0.121	12.4%	23.4625
Nickel	420	61.9%	0.121	12.4%	84.9047
Selenium	100	64.2%	0.121	12.4%	19.4912
Silver	-	75.0%	0.121	12.4%	-
Strontium	-	0.0%	0.121	12.4%	-
Thallium	-	40.0%	0.121	12.4%	-
Zinc	2800	72.9%	0.121	12.4%	480.6220

*Ceiling Concentration Value (Table1)

Calculation of Pass-Through (NPDES) Headworks Loading (lbs/day)

POTW Name: Warren WPC

Pollutant	NPDES Permit* Criteria mg/L	Removal Rate %	Plant Flow MGD	NPDES MAHL lbs/day
Antimony	-	50.0%	14.64	-
Arsenic	0.68	45.0%	14.64	150.9570
Barium	1798	0.0%	14.64	219531
Cadmium	0.0023	67.0%	14.64	0.8510
Chromium	0.688	82.0%	14.64	466.6842
Chromium, Hex.	0.031	50.0%	14.64	7.5701
Copper	0.04	73.8%	14.64	18.6409
Cyanide	0.024	69.0%	14.64	9.4527
Lead	0.019	61.0%	14.64	5.9483
Mercury	0.000012	80.4%	14.64	0.0075
Molybdenum	-	40.0%	14.64	-
Nickel	0.406	61.9%	14.64	130.1093
Selenium	0.024	64.2%	14.64	8.1853
Silver	0.0055	75.0%	14.64	2.6861
Strontium	46118	0.0%	14.64	5630897
Thallium	0.084	40.0%	14.64	17.0937
Zinc	0.346	72.9%	14.64	155.8884
TDS	9665	0.0%	14.64	1180073

* or value designated in Part II CC (4)

Calculation of Process Inhibition Headworks Loading Limitation (lbs/day)

POTW Name: Warren WPC

Pollutant	Inhibition Levels mg/L	Removal Rate* %	Plant Flow MGD	Activated sludge MAHL lbs/day
Antimony	-	0.0%	14.64	-
Arsenic	0.1	0.0%	14.64	12.210
Barium	-	0.0%	14.64	-
Cadmium	1	15.0%	14.64	143.644
Chromium	1	27.0%	14.64	167.257
Chromium, Hex.	1	0.0%	14.64	122.098
Copper	1	22.0%	14.64	156.535
Cyanide	0.1	0.0%	14.64	12.210
Lead	1	57.0%	14.64	283.948
Mercury	0.1	10.0%	14.64	13.566
Molybdenum	-	0.0%	14.64	-
Nickel	1	14.0%	14.64	141.974
Selenium	-	0.0%	14.64	-
Silver	0.25	20.0%	14.64	38.156
Strontium	-	0.0%	14.64	-
Thallium	-	0.0%	14.64	-
Zinc	1	27.0%	14.64	167.257

* Primary Process Removal

Comparison of Headworks Loading Limitations
(lbs/day)

POTW Name: Warren WPC

Pollutant	Final Passthrough Loading	Final Inhibition Loading	Final Sludge Loading*	Final Headworks Limitation
Antimony	-	-	-	-
Arsenic	150.9570	12.2098	11.4010	**11.40**
Barium	219,531	-	-	**219,531**
Cadmium	0.8510	143.6442	7.2839	**0.85**
Chromium	466.6842	167.2570	-	**167.26**
Chromium, Hex.	7.5701	122.0976	-	**7.57**
Copper	18.6409	156.5354	254.3361	**18.64**
Cyanide, Free	9.4527	12.2098	-	**9.45**
Lead	5.9483	283.9479	61.5410	**5.95**
Mercury	0.0075	13.5664	2.6459	**0.0075**
Molybdenum	-	-	23.4625	**23.46**
Nickel	130.1093	141.9740	84.9047	**84.90**
Selenium	8.1853	-	19.4912	**8.19**
Silver	2.6861	38.1555	-	**2.69**
Strontium	5,630,897	-	-	**5,630,897**
Thallium	17.0937	-	-	**17.09**
Zinc	155.8884	167.2570	480.6220	**155.89**
TDS	1,180,073	-	-	**1180073**

* 40 CFR 503 Table 3 Values used for all parameters except Molybdenum

40 CFR 503 Table 1 values are used for Molybdenum

Conservative Parameter Allocation - Contributory Flow Method

Pollutant	Max. Allowable HW. Loading lbs/day	Domestic Flow MGD	Domestic Loading lbs/day	Safety Factor 20%	Allowable Ind. Loading lbs/day	Contributory Ind. Flow MGD	Calculated Local Limit mg/L	Ordinance Local Limit mg/L	FPS 2003 Local Limit mg/L
Antimony	-							0.329	4.00
Arsenic	11.40	14.190	0.59	2.28	8.529	0.451	2.27	0.2	2.81
Barium	219531	13.384	2.78	43906	175622	1.256	16,763		
Cadmium	0.85	13.748	0.57	0.17	0.108	0.892	0.014	1.95	16.38
Chromium	167.26	13.396	0.56	33.45	133.247	1.244	12.84	1.5	9.82
Chromium, Hex	7.57	14.280	1.23	1.51	4.829	0.361	1.61	1.4	10.30
Copper	18.64	13.384	3.10	3.73	11.810	1.256	1.13	0.705	0.83
Cyanide, Free	9.45	13.496	0.56	1.89	6.999	1.144	0.73	0.335	5.06
Lead	5.95	13.736	0.78	1.19	3.980	0.904	0.53	1	0.89
Mercury	0.0075	14.178	0.0118	0.0015	-0.0058	0.463	-0.0015	0.0035	0.0037
Molybdenum	23.46	14.577	0.61	4.69	18.162	0.064	34.29	0.699	0.85
Nickel	84.90	13.425	0.79	16.98	67.129	1.215	6.63	1.8	2.48
Selenium	8.19	14.331	0.60	1.64	5.951	0.309	2.31	0.932	1.47
Silver	2.69	13.748	0.57	0.54	1.576	0.892	0.21	1.2	19.68
Strontium	5630897	13.384	15.29	1126179	4504702	1.256	429,973	-	
Thallium	17.09	13.748	0.57	3.42	13.102	0.892	1.76	-	
Zinc	155.89	13.384	9.60	31.18	115.111	1.256	10.99	1.396	1.21
TDS	1180073	13.384	48287.20	236015	895771	1.256	85,501		

Novelis	0.0415
BFI Medical	0.012
GE Ohio Lamp	0.0095
GM Lordstown	0.5378
Arcelormittal	0.309
Packard Electric	0.244
Taylor Coil	0.0005
Warren Steel Specialties	0.0004
Wheatland Tube	0.0013
Patriot	0.1
Total	**1.256**

SLUDGE DISPOSAL DATA
INFLUENT DATA
EFFLUENT DATA

Sludge to Disposal by Land Application
Disposal Year 2010

Parameter	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Max	Min	Total / Average
As, mg/Kg	2.16	1.02	2.41	3.96	3.12	3.38	5.33	6.64	7.17	7.26	6.06	6.46	7.26	1.02	4.58
Cd, mg/Kg	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
Cu, mg/Kg	108	34.6	94.8	95.3	84.8	107	97.6	124	104	96.5	82.7	96.7	124	34.6	94
Pb, mg/Kg	31.9	8.68	28.8	30.3	28.4	27.9	27.2	63	30.1	36.1	26.1	24.1	63	8.68	30.22
Ni, mg/Kg	38.7	9.01	40.3	27.8	24.2	29.1	23.5	26.2	21.9	25.5	44.5	71.1	71.1	9.01	31.82
Hg, mg/Kg	0.29	0.147	0.389	0.298	0.368	0.265	0.514	0.565	0.618	0.734	0.984	0.571	0.984	0.147	0.48
Mo, mg/Kg	30.6	8.18	26	20.6	16.7	20.8	11.1	10.6	4.68	11.8	11.8	12.6	30.6	4.68	15.46
Zn, mg/Kg	288	93.5	336	281	271	329	321	467	376	367	287	297	467	93.5	309
Se, mg/Kg	3.31	1.14	3.31	3.59	2.67	2.28	13.7	31	31.4	34.3	37.6	32.3	37.6	1.14	16.38
Average % Total Solids	37.8	38.9	38.8	38.8	37.1	35.9	37.1	38	39.2	38.8	40.9	41.7	41.7	35.9	38.58

City of Warren WWTP Metals Removal

		MG	MGD	Cd (DL=0.5)			Cr, T (DL=5)			Cr, +6 (DL=2)			Cu (DL=10)			Hg, ppt (DL=0.2)			Ni (DL=5)		
2008		Total Flow	Avg/day	Inf	Eff	% Rem	Inf	Eff	% Rem	Inf	Eff	% Rem	Inf	Eff	% Rem	Inf	Eff	% Rem	Inf	Eff	% Rem
	Jan	453.773	14.64	3	1.5	50.0	7	2.5	64.3	1	1		59	21	64.4	10.4	1.12	89.2	112	42	62.5
	Feb	774.372	26.70	2	2		2.5	2.5		1	1		30	5	83.3	18.7	9.79	47.6	105	15	85.7
	Mar	971.722	31.35	2	0.25	87.5	2.5	2.5		1	1		32	27	15.6	0.1	18.6		63	25	60.3
	Apr	535.308	17.84	0.25	0.25		2.5	2.5		2	1	50.0	51	11	78.4	0.1	0.1		121	2.5	97.9
	May	641.682	20.70	4	1	75.0	2.5	2.5		2	2		13	5	61.5	44.8	18.2	59.4	68	11	83.8
	Jun	518.333	17.28	0.25	0.25		2.5	2.5		2	1	50.0	57	5	91.2	24.8	1.76	92.9	72	55	23.6
	Jul	513.056	16.55	0.25	0.25		20	6	70.0	2	1	50.0	84	5	94.0	48	4.86	89.9	15	2.5	83.3
	Aug	425.04	13.71	0.25	0.25		2.5	2.5		2	1	50.0	20	5	75.0	20.9	3.51	83.2	36	2.5	93.1
	Sep	443.454	14.78	0.25	0.25		2.5	2.5		2	1	50.0	34	5	85.3	17	1.8	89.4	15	29	
	Oct	382.254	12.33	0.25	0.25		7	2.5	64.3	2	1	50.0	23	5	78.3	50.9	5.4	89.4	46	25	45.7
	Nov	405.42	13.51	0.25	0.25		20	2.5	87.5	2	1	50.0	28	5	82.1	0.1	0.1		5	24	
	Dec	515.091	16.62	0.25	0.25		13	2.5	80.8	1	1		25	5	80.0	5.37	2.23	58.5	52	40	23.1
2009	Jan	448.614	14.47	0.25	0.25		2.5	2.5		2	1	50.0	22.7	5	78.0	27.6	1.47	94.7	2.5	2.5	
	Feb	505.15	18.04	0.25	0.25		12.4	2.5	79.8	2	1	50.0	15.6	5	67.9	27.6	1.89	93.2	2.5	2.5	
	Mar	589.328	19.01	0.25	0.25		2.5	2.5		1	1		5	5		28.9	4.72	83.7	2.5	2.5	
	Apr	545.453	18.18	0.25	0.25		19.6	2.5	87.2	2	1	50.0	21.8	17.6	19.3	12	1.46	87.8	30.1	12.8	57.5
	May	412.793	13.32	0.25	0.25		19.8	2.5	87.4	2	1	50.0	32.1	5	84.4	6.01	2.95	50.9	50.7	2.5	95.1
	Jun	387.902	12.93	0.25	0.25		24	2.5	89.6	2	1	50.0	22.8	5	78.1	81	3.54	95.6	2.5	2.5	
	Jul	334.002	10.77	0.25	0.25		2.5	2.5		2	1	50.0	21.1	5	76.3	2.5	1.4	44.0	2.5	2.5	
	Aug	315.728	10.18	0.25	0.25		2.5	2.5		1	1		22.1	5	77.4	7.25	1.21	83.3	2.5	2.5	
	Sep	276.815	9.23	0.25	0.25		2.5	2.5		1	1		34.3	5	85.4	14.7	3.15	78.6	2.5	2.5	
	Oct	353.493	11.40	0.25	0.25		2.5	2.5		2	1	50.0	27.6	5	81.9	27.8	1.61	94.2	2.5	2.5	
	Nov	296.916	9.90	0.25	0.25		2.5	2.5		2	1	50.0	17.7	5	71.8	23.6	1.79	92.4	2.5	2.5	
	Dec	406.058	13.10	0.25	0.25		2.5	2.5		2	1	50.0	5	5		16.8	7.44	55.7	2.5	2.5	
2010	Jan	436.754	14.09	0.25	0.25		2.5	2.5		2	1	50.0	17.6	5	71.6	36	0.2	99.4	2.5	2.5	
	Feb	360.169	12.86	0.25	0.25		2.5	2.5		1	1		25	5	80.0	13	2.31	82.2	45.1	22.8	49.4
	Mar	569.756	18.38	0.25	0.25		2.5	2.5		2	1	50.0	17.9	5	72.1	25	2.77	88.9	24.6	12	51.2
	Apr	385.486	12.85	0.25	0.25		2.5	2.5		1	1		21.6	5	76.9	18.5	2.69	85.5	28.3	12	57.6
	May	464.867	15.00	0.25	0.25		2.5	2.5		2	1	50.0	16.5	5	69.7	8.6	1.45	83.1	27.2	11.9	56.3
	Jun	395.639	13.19	0.25	0.25		2.5	2.5		1	1		5	5		8.2	1.61	80.4	13.3	2.5	81.2
	Jul	311.571	10.05	0.25	0.25		2.5	2.5		2	1	50.0	28.8	5	82.6	21.8	1.63	92.5	2.5	2.5	
	Aug	339.419	10.95	0.25	0.25		2.5	2.5		2	1	50.0	21.9	5	77.2	16.3	2.18	86.6	23	15.5	32.6
	Sep	253.975	8.47	0.25	0.25		2.5	2.5		1	1		19.7	5	74.6	179	2.68	98.5	2.5	2.5	
	Oct	299.499	9.66	0.25	0.25		2.5	2.5		1	1		23.2	5	78.4	134	5.28	96.1	34.7	11.9	65.7
	Nov	332.409	11.08	0.25	0.25		2.5	2.5		2	2		16.1	5	68.9	5.9	3.35	43.2	66.3	25.5	61.5
	Dec	437.016	14.10	0.25	0.25		2.5	2.5		2	1	50.0	5	5		26.7	10.1	62.2	41.9	28.5	32.0
	Total	16038.3	527.22																		
	Avg	445.5	14.64	0.527778	0.35	70.8	5.8	2.6	79.0	1.67	1.06	50.0	25.6	6.6	73.8	28.05	3.79	80.4	31.3	12.9	61.9
	Max	971.7	31.35	4	2.00	87.5	24	6.00	89.6	2	2.00	50.0	84	27.00	94.0	179	18.60	99.4	121	55.00	97.9
	Min	254.0	8.47	0.25	0.25	50.0	2.5	2.50	64.3	1	1.00	50.0	5	5.00	15.6	0.1	0.10	43.2	2.5	2.50	23.1

Metals results are in ppb unless otherwise indicated
Values reported as Less than Detection were calculated as 1/2 Detection Limit values

City of Warren WWTP Metals Removal

		MG	MGD	Zn (DL=10)			Pb (DL=5)			CN, ppm (DL=10)			Se (DL=10)			Tl (DL=10)			Sb (DL=10)		
2008		Total Flow	Avg/day	Inf	Eff	% Rem	Inf	Eff	% Rem	Inf	Eff free	% Rem	Inf	Eff	% Rem	Inf	Eff	% Rem	Inf	Eff	% Rem
	Jan	453.773	14.64	232	73	68.5	2.5	2.5		5	5		13	5	61.5	5	5		5	5	
	Feb	774.372	26.70	133	41	69.2	10.7	2.5	76.6	180	5	97.2	5	5		5	5		5	5	
	Mar	971.722	31.35	193	72	62.7	2.5	2.5		131	5	96.2	5	5		5	5		5	5	
	Apr	535.308	17.84	132	45	65.9	2.5	2.5		5	5		5	5		5	5		5	5	
	May	641.682	20.70	130	44	66.2	2.5	2.5		12	5	58.3	5	5		5	5		5	5	
	Jun	518.333	17.28	249	53	78.7	2.5	2.5		5	5		5	5		5	5		5	5	
	Jul	513.056	16.55	231	35	84.8	2.5	2.5		38	5	86.8	5	5		5	5		5	5	
	Aug	425.04	13.71	78	13	83.3	2.5	2.5		44	5	88.6	5	5		5	5		5	5	
	Sep	443.454	14.78	313	13	95.8	2.5	2.5		5	5		12	14		5	5		5	5	
	Oct	382.254	12.33	125	24	80.8	2.5	2.5		5	5		39.6	15.3	61.4	5	5		5	5	
	Nov	405.42	13.51	87	22	74.7	2.5	2.5		5	5		14.1	26.9		5	5		5	5	
	Dec	515.091	16.62	58	15	74.1	2.5	2.5		5	5		17.3	25.8		5	5		5	5	
2009	Jan	448.614	14.47	83.6	30.7	63.3	2.5	2.5		5	5		15.9	5	68.6	5	5		5	5	
	Feb	505.15	18.04	57.4	25.9	54.9	2.5	2.5		5	5		21	5	76.2	5	5		5	5	
	Mar	589.328	19.01	5	5		2.5	2.5		5	5		11.5	5	56.5	5	5		5	5	
	Apr	545.453	18.18	70.8	36.9	47.9	2.5	2.5		5	5		13.7	5	63.5	5	5		5	5	
	May	412.793	13.32	114	19.1	83.2	2.5	2.5		5	5		11.2	5	55.4	5	5		5	5	
	Jun	387.902	12.93	65	12.8	80.3	2.5	2.5		5	5		13.9	5	64.0	5	5		5	5	
	Jul	334.002	10.77	72.1	16.5	77.1	2.5	2.5		5	5		5	5		5	5		5	5	
	Aug	315.728	10.18	44.4	12.6	71.6	2.5	2.5		5	5		5	5		5	5		5	5	
	Sep	276.815	9.23	66.6	13.7	79.4	2.5	2.5		5	5		5	5		5	5		5	5	
	Oct	353.493	11.40	76.3	21.1	72.3	2.5	2.5		5	5		5	5		5	5		5	5	
	Nov	296.916	9.90	93.7	19.1	79.6	12.5	2.5	80.0	5	5		5	5		5	5		5	5	
	Dec	406.058	13.10	22.4	14.6	34.8	2.5	2.5		5	5		5	5		5	5		5	5	
2010	Jan	436.754	14.09	65.3	20.7	68.3	2.5	2.5		5	5		5	5		5	5		5	5	
	Feb	360.169	12.86	101	26.7	73.6	2.5	2.5		5	5		5	5		5	5		5	5	
	Mar	569.756	18.38	69.3	18.9	72.7	2.5	2.5		5	5		5	5		5	5		5	5	
	Apr	385.486	12.85	69.2	15.5	77.6	2.5	2.5		5	5		5	5		5	5		5	5	
	May	464.867	15.00	51.3	13.6	73.5	2.5	2.5		5	5		5	5		5	5		5	5	
	Jun	395.639	13.19	35.5	13.6	61.7	2.5	2.5		5	5		5	5		5	5		5	5	
	Jul	311.571	10.05	96	16.4	82.9	2.5	2.5		5	5		14.6	5	65.8	5	5		5	5	
	Aug	339.419	10.95	87.9	15.7	82.1	2.5	2.5		5	5		5	5		5	5		5	5	
	Sep	253.975	8.47	55.9	5	91.1	2.5	2.5		5	5		29.2	5	82.9	5	5		5	5	
	Oct	299.499	9.66	62.2	17.2	72.3	2.5	2.5		5	5		13.7	5	63.5	5	5		5	5	
	Nov	332.409	11.08	79.4	16.8	78.8	2.5	2.5		5	5		10.3	5	51.5	5	5		5	5	
	Dec	437.016	14.10	51.6	16.7	67.6	2.5	2.5		5	5		5	5		5	18.4		5	206	
	Total	16038.3	527.22																		
	Avg	445.5	14.64	98.8	24.3	72.9	3.0	2.5	78.3	15.56	5.00	85.4	9.9	6.7	64.2	5.00	5.37		5.0	10.6	
	Max	971.7	31.35	313	73.00	95.8	12.5	2.50	80.0	180	5.00	97.2	39.6	26.90	82.9	5	18.40		5	206.00	
	Min	254.0	8.47	5	5.00	34.8	2.5	2.50	76.6	5	5.00	58.3	5	5.00	51.5	5	5.00		5	5.00	

Metals results are in ppb unless c
Values reported as Less than Det

DOMESTIC COLLECTION SYSTEM
SAMPLING RESULTS

BACKGROUND SAMPLE TESTING

BACKGROUND 2008

PLACE	Hollywood	Belvedere	Hollywood	Belvedere	Hollywood	Belvedere
DATE	3/6/08	3/13/08	6/10/08	7/30/08	8/19/08	9/18/08
TIME	8:30 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM
C.O.C.	0803060036	0803130039	0806100085	0807300112	0808190130	0809180148
LAB	American Testing	American Testing	American Testing	American Testing	American Testing	American Testing
PARAMETERS						
CADMIUM ug/l	<10	<10	<10	<10	<10	<10
T.CHROMIUM ug/l	<10	<10	<10	<10	<10	<10
HEX CHROMIUM ug/l	18	<.010	<.01	<.01	85	<10
LEAD ug/l	<10	<10	10.5	<10	<10	<10
MERCURY ug/l	<.2	<.2	<.2	<.2	<.2	<.2
NICKEL ug/l	<10	<10	<10	<10	15.6	<10
ZINC mg/l	26.6		86.6	184	478	81.7
SILVER ug/l	<10	<10	<10	<10	<10	<10
PHENOL Ug/L	31	28	69	39		21.5
CYANIDE Mg/l	<.01	<.01	<.01	<.01	<.01	<10
FREE CYANIDE mg/l	<.01	<.01	<.01	<.01	<.01	<.01
COPPER ug/l	<10	<10	24.4	37.1	70	17.8
AMMONIA mg/l	6.43	2.42	15.7	12.7	25.2	13.1
COD mg/l	90	125	332	418	498	349
Ph			7.06			
ARSENIC ug/l	<10	<10	<10	<10	<10	<10
OIL & GREASE mg/l	7	4	31	7.64	40.1	33.3
MOLYBDENUM ug/l	<10	<10	<10	<10	<10	<10
ANTIMONY ug/l	<10	<10	<10	<10	<10	<10
SELENIUM ug/l	<10	<10	<10	<10	<10	<10
PHOSPHORUS mg/l	1.03	0.993	2.97	4.41	8.99	3.69
THALLIUM ug/l	<10	<10	<10	<10	<10	<10
ALUMINUM ug/l	195	290	301	3180	1520	373
TSS	31	17	51	56	464	380

BACKGROUND SAMPLE TESTING

BACKGROUND 2009

PLACE	Hollywood	Belvedere	Hollywood	Belvedere	Hollywood	Belvedere
DATE	4/23/09	3/17/09	7/28/09	7/7/09	10/27/09	9/17/09
TIME						
C.O.C.	0904230053	0903170037	0907280101	0907070090	0911020148	0909170121
LAB	Precision Analytical	Precision Analytical	Precision Analytical	Precision Analytical	Precision Analytical	Precision Analytical
PARAMETERS						
CADMIUM ug/l	<10	<10	<10	<10	<10	<10
T.CHROMIUM ug/l	<10	10.6	<10	<10	<10	<10
HEX CHROMIUM ug/l	<10	<10	<10	14	<.20	<.01
LEAD ug/l	<10	15.7	<10	<10	<10	<10
MERCURY ug/l	<.2	0.791	<.2	<.2	<.2	<.2
NICKEL ug/l	30.5	<10	<10	<10	<10	<10
ZINC ug/l	54.1	225	52	126	152	117
SILVER ug/l	<10	200	<10	<10	<10	<10
PHENOL Ug/L	<5	44	300	490	66	658
CYANIDE Mg/l	<.01	0.017	<.01	<.01	<.01	<.01
FREE CYANIDE mg/l	<.01	<.01	0.01	<.01	<.01	<.01
COPPER ug/l	14.1	99	22.1	19.2	24.7	23.8
AMMONIA mg/l	8.16	4.73	18.1	13.4	12.7	16.6
COD mg/l	72.4	266	228	280	379	369
Ph	6.99	7.26		7.24	7.42	8.63
ARSENIC ug/l	<10	<10	<10	<10	<10	<10
OIL & GREASE mg/l	22.3	25.2	70.6	42.4	5.63	52.1
MOLYBDENUM ug/l	<10	<10	<10	<10	<10	<10
ANTIMONY ug/l	<10	<10	<10	<10	<10	<10
SELENIUM ug/l	<10	<10	<10	<10	<10	<10
PHOSPHORUS mg/l	1.58	3.38	2.87	3.08	3.21	1.72
THALLIUM ug/l	<10	<10	<10	<10	<10	<10
ALUMINUM ug/l	231	3750	217	608	648	903
TDS (new parameter)					232	644

BACKGROUND SAMPLE TESTIN(

BACKGROUND 2010

PLACE	Hollywood	Belvedere	Westwood	Belvedere	Hollywood	Belvedere	Westwood
DATE	4/6/10	3/31/10	5/4/10	7/7/10	7/26/10	9/23/10	9/15/10
TIME							
C.O.C.	1004060078	1003310074	1005040106	1007070136	1007260143	1009230169	1009150167
LAB	Precision Analytical	Precision Analytical	Precision Analytical	Precision Analytical	Precision Analytical	Precision Analytical	Precision Analytical
PARAMETERS							
CADMIUM ug/l	<10	<10	<10	<10	<10	<10	<10
T.CHROMIUM ug/l	<10	<10	<10	<10	<10	<10	<10
HEX CHROMIUM ug/l	<.01	<.05	10	<.01	<10	<10	<50
LEAD ug/l	<10	<10	<10	<10	13.4	11.9	<10
MERCURY ug/l	<.2	<.2	<.2	<.2	<.2	<.2	<.2
NICKEL ug/l	<10	<10	<10	<10	<10	<10	<10
ZINC ug/l	28.1	29.4	58	54.2	137	112	45.4
SILVER ug/l	<10	<10	<10	<10	<10	<10	<10
PHENOL Ug/L	<5	<5	113	<5	65	<5	36
CYANIDE Mg/l	<.01	<.01	<.01	<.01	<.01	<.01	<.01
FREE CYANIDE mg/l	<01	<.01	<.01	<.01	<.01	<.01	<.01
COPPER ug/l	60.3	24.4	33.6	21	18.1	29.6	12.4
AMMONIA mg/l	8.1	2.78	9.12	8.3	16.2	12	18.6
COD mg/l	153	177	291	279	622	460	299
Ph	7.43				7.67	7.96	7.48
ARSENIC ug/l	<10	<10	<10	<10	<10	<10	<10
OIL & GREASE mg/l	41.3	14.6	24.1	29.7	6.02	21.2	37.9
MOLYBDENUM ug/l	<10	<10	<10	<10	<10	<10	<10
ANTIMONY ug/l	<10	<10	<10	<10	<10	<10	<10
SELENIUM ug/l	<10	<10	<10	<10	<10	<10	<10
PHOSPHORUS mg/l	1.73	1.6	2.34	2.94	48.5	4.76	3.78
THALLIUM ug/l	<10	<10	<10	<10	<10	<10	<10
ALUMINUM ug/l	97.1	422	382	355	928	1390	246
BARIUM	23.6	18.5	24.5	21.7	39.3	22.1	19.3
STRONTIUM	158	164	166	97.1	149	77	97.8
TDS (new parameter)	384	500	544			344	380

City of Warren Domestic Sampling Results

Hollywood Sampling

Parameter	04/23/09	07/28/09	10/27/09	04/06/10	07/26/10	Max	Min	Avg
Cd, ug/L	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Cr, T ug/L	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Cr, Hex ug/L	5	5	10.000	5.000	5	10.0	5.000	6.000
Pb, ug/L	5.0	5.0	5.0	5.0	13.4	13.4	5.0	6.7
Hg, ng/L	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Ni, ug/L	30.5	5.0	5.0	5.0	5.0	30.5	5.0	10.1
Zn, ug/L	54.1	52.0	152.0	28.1	137.0	152.0	28.1	84.6
Ag, ug/L	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
CN-Free, ug/L	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
Cu, ug/L	14.1	22.1	24.7	60.3	18.1	60.3	14.1	27.9
As, ug/L	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Mo, ug/L	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Sb, ug/L	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Se, ug/L	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Tl, ug/L	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Al, ug/L	231	217	648	97	928	928	97	424
Barium, ug/L				23.6	39.3	39.3	23.6	31.5
Strontium, ug/L				158.0	149.0	158.0	149.0	153.5
TDS, mg/L			232	384.0		384.0	232.0	308.0

Westwood Sampling

Parameter	05/04/10	9/15/2010	Max	Min	Avg
Cd, ug/L	5.0	5	5.0	5.000	5.000
Cr, T ug/L	5.0	5	5.0	5.000	5.000
Cr, Hex ug/L	10	25	25.0	10.000	17.500
Pb, ug/L	5.0	11.9	11.9	5.0	8.5
Hg, ng/L	0.10	0.1	0.10	0.10	0.10
Ni, ug/L	5.0	5	5.0	5.0	5.0
Zn, ug/L	58.0	112	112.0	58.0	85.0
Ag, ug/L	5.0	5	5.0	5.0	5.0
CN-Free, ug/L	5.000	5	5.000	5.000	5.000
Cu, ug/L	33.6	29.6	33.6	29.6	31.6
As, ug/L	5.0	5	5.0	5.0	5.0
Mo, ug/L	5.0	5	5.0	5.0	5.0
Sb, ug/L	5.0	5	5.0	5.0	5.0
Se, ug/L	5.0	5	5.0	5.0	5.0
Tl, ug/L	5.0	5	5.0	5.0	5.0
Al, ug/L	382	1390	1390	382	886
Barium	24.5	22.1	24.5	22.1	23.3
Strontium	166	77	166.0	77.0	121.5
TDS	544	380	544.0	380.0	462.0

Belvedere Sampling

Parameter	07/07/09	09/17/09	03/31/10	07/07/10	9/23/2010	Max	Min	Avg
Cd, ug/L	5.0	5.0	5.0	5.0	5	5.0	5.0	5.0
Cr, T ug/L	5.0	5.0	5.0	5.0	5	5.0	5.0	5.0
Cr, Hex ug/L	14	5.000	25.000	10	5	25.0	5.000	11.800
Pb, ug/L	5.0	5.0	5.0	5.0	11.9	11.9	5.0	6.4
Hg, ng/L	0.10	0.10	0.10	0.10	0.1	0.10	0.10	0.10
Ni, ug/L	5.0	5.0	5.0	5.0	5	5.0	5.0	5.0
Zn, ug/L	126.0	117.0	29.4	58.0	112	126.0	29.4	88.5
Ag, ug/L	5.0	5.0	5.0	5.0	5	5.0	5.0	5.0
CN-Free, ug/L	5.000	5.000	5.000	5.000	5	5.000	5.000	5.000
Cu, ug/L	19.2	23.8	24.4	33.6	29.6	33.6	19.2	26.1
As, ug/L	5.0	5.0	5.0	5.0	5	5.0	5.0	5.0
Mo, ug/L	5.0	5.0	5.0	5.0	5	5.0	5.0	5.0
Sb, ug/L	5.0	5.0	5.0	5.0	5	5.0	5.0	5.0
Se, ug/L	5.0	5.0	5.0	5.0	5	5.0	5.0	5.0
Tl, ug/L	5.0	5.0	5.0	5.0	5	5.0	5.0	5.0
Al, ug/L	608	903	422	382	1390	1390	382	741
Barium, ug/L			18.5	24.5	22.1	24.5	18.5	21.5
Strontium, ug/L			164.0	166.0	77	166.0	164.0	165.0
TDS, mg/L		644	500.0		344	644.0	500.0	572.0

City of Warren Domestic Sampling Results

Average Domestic Concentrations					
Parameter	Max	Min	Sum	Count	Avg
Cd, ug/L	5.0	5.0	60.0	12.0	5.000
Cr, T ug/L	5.0	5.0	60.0	12.0	5.000
Cr, Hex ug/L	25.0	5.0	124.0	12.0	10.333
Pb, ug/L	13.4	5.0	82.2	12.0	6.850
Hg, ng/L	0.1	0.1	1.2	12.0	0.100
Ni, ug/L	30.5	5.0	85.5	12.0	7.125
Zn, ug/L	152.0	28.1	1035.6	12.0	86.300
Ag, ug/L	5.0	5.0	60.0	12.0	5.000
CN-Free, ug/L	5.0	5.0	60.0	12.0	5.000
Cu, ug/L	60.3	14.1	333.1	12.0	27.758
As, ug/L	5.0	5.0	60.0	12.0	5.000
Mo, ug/L	5.0	5.0	60.0	12.0	5.000
Sb, ug/L	5.0	5.0	60.0	12.0	5.000
Se, ug/L	5.0	5.0	60.0	12.0	5.000
Tl, ug/L	5.0	5.0	60.0	12.0	5.000
Al, ug/L	1390.0	97.1	7598.1	12.0	633.175
Barium, ug/L	39.3	18.5	174.6	7.0	24.943
Strontium, ug/L	166.0	77.0	957.0	7.0	136.714
TDS, mg/L	644.0	232.0	3028.0	7.0	432.571

Ohio | Environmental Protection Agency
John R. Kasich, **Governor**
Mary Taylor, **Lt. Governor**
Scott J. Nally, **Director**

August 10, 2011

Deborah J. Houdeshell, P.E.
Senior Associate
Hazen and Sawyer
11311 Cornell Park Drive, Suite 135
Cincinnati, OH 45242

Re: City of Warren
NPDES Permit 3PE00008
Local Limit Evaluation

Dear Ms Houdeshell:

On July 1, 2011, Ohio EPA received the technical justification report for updating the existing local industrial discharge limitations for the City of Warren WWTP. The following issues must be addressed and a revised copy of the technical justification must be submitted before the Ohio EPA can continue the review process:

1. The percent total solids of sludge for disposal is listed as 12.4% on page 5 of the technical justification, but is given as 38.6% on Table 3 on page 6. Please explain the differences between these two numbers.

2. The concentrations for mercury in Table 4 are listed as ng/L. Given the numbers included in the Domestic Collection System Sampling Results, this probably should be µg/L.

3. The process inhibition for zinc given in Table 7 is incorrect. The activated sludge inhibition for zinc is 0.3 mg/L.

4. The technical justification does not mention nitrification inhibition as a potential impact to the operations of the wastewater treatment plant. An assessment of nitrification inhibition needs to be included as part of the technical justification. As part of the nitrification inhibition assessment, the potential for chlorides to cause inhibition should also be included.

5. For cadmium, lead, mercury, and silver, the calculated local limits are lower than the previous local limits. Since cadmium's maximum effluent is within 80% of the water quality standard and mercury's maximum is over the limit, the lower calculated limits must be adopted. Because the mercury calculated maximum industrial headworks loading is a negative value, Best Management Practices (BMPs) to reduce mercury discharges are mandatory.

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6. In the Warren March 6, 2010 request for an extension of the deadline to submit the local limit evaluation, one of the issues cited was the higher than normal detection limits, and that better data would be collected. However, the technical justification still contained higher than normal detection limits for most parameters, including cadmium, lead, and mercury. Because the mercury MIHL is negative, it is recommended that low level mercury sampling be conducted for the technical justification.

7. For total dissolved solids (TDS), strontium, and barium, more than seven domestic samples points are needed for a proper technical justification. Typically a minimum of two weeks' worth of back ground data per a parameter is needed. Part of the reason for the submission extension was to collect sufficient data to calculate local limits for total dissolved solids (TDS), barium, and strontium.

8. Table 2, Summary of Effluent Metals Concentrations, does not contain values for TDS, barium, or strontium. Given the amount of data Warren collected during the gas well wastewater acceptance study and since the NPDES permit modification became effective, effluent concentrations should be calculated.

9. There were significant errors in the wasteload allocation (WLA) calculations used for the TDS, barium and strontium NPDES Permit Requirements found in Tables 7, 9 and 15. The units for barium and strontium are µg/L, not mg/L. The units for TDS are mg/L, not µg/L. The allowable loading (AL) for strontium is 21,000 µg/L and the maximum AL is 40,000 µg/L based on values in the Ohio River Basin Aquatic Life and Human Health summary table, found at http://www.epa.state.oh.us/dsw/wqs/criteria.aspx. The Al for TDS is 500 mg/l, based on the presence of a downstream water supply in Pennsylvania.

   As shown in Warren WPCC 2007 NPDES Fact Sheet Table 7, Instream Conditions and Discharger Flow for CONSWLA Model, the background water quality concentrations in the Mahoning River for barium, strontium, and TDS are 36 µg/L, 151 µg/L, and 307 mg/L, respectively. There also appear to be errors in the spreadsheet formulas. The WLA values must be corrected prior to calculating local limits.

This local limits technical justification was due February 1, 2011, after deferring the submission due January 1, 2009. Because the submission of this technical justification was extremely overdue, it is necessary to expedite resolution of the above significant issues. Please respond to this letter by August 29, 2011 providing a schedule for submitting a revised technical justification report that addresses the issues noted above. If there are any questions or concerns regarding this letter or if any further guidance is needed, please do not hesitate to contact me at 614-644-2134 or to email me at Ryan.Laake@epa.state.oh.us.

Sincerely,

Ryan Laake
Permits & Compliance Section
Division of Surface Water

cc: Donna Kniss, NEDO-DSW
Tom Angelo, Warren WWTP
Keith Folman, Warren WWTP
Michael O'Brien, Mayor, City of Warren
Pretreatment File

HAZEN AND SAWYER
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August 29, 2011

Mr. Ryan Laake
Permits & Compliance Section
Division of Surface Water
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, OH 43216-1049

Re: City of Warren
NPDES Permit 3PE00008
Local Limit Evaluation

Dear Mr. Laake:

On August 10, 2011, this office received correspondence outlining issues that were raised by you on the Local Limits Evaluation for the City of Warren. On August 23, you and I had a conversation concerning the issues and clarifications of the issues. The following are responses in the same order as the original letter.

1. There was a question on the percent solids shown in Table 3. The percent total solids of sludge disposal listed as 12.4% on page 5 is the percent used in the calculations and the percent solids coming out of the plant. The percent solids of 38.6% listed in Table 3 on page 3 is the percent solids from Nature's Blend.

2. It was pointed out that there was an incorrect labeling on mercury in Table 4. The labeling should be ug/L and has been corrected.

3. The number used for process inhibition for zinc was being questioned and it was stated that it is wrong. Actually there is a range for process inhibition for zinc of 0.3 – 5 mg/L. In this technical justification to be conservative the number 1mg/L was used. You stated you wanted 0.3 mg/L to be used in the calculations. This has been revised and showed no impact. The current ordinance in Warren has a lower local limit which will remain.

4. It is correct to say that the technical justification does not mention nitrification inhibition as a potential impact. Since the wastewater treatment plant does not nitrify nor do they have a TKN or P limit the nitrification inhibition was not used. Since the nitrification inhibition assessment was not completed, the potential for chlorides to cause inhibition was not included. The need for either one of these was not included in the permit modification. They will be addressed in a modification to the technical justification.

5. It was stated that cadmium's maximum effluent is within 80% of the water quality standard. The numbers on the monthly summary were not entered correctly. The data we

were given showed the total in the place for maximum. Therefore instead of a maximum effluent number of 2 for cadmium it should have been 1 ug/L. This number is not within 80% of the water quality standard so should be okay. The City has begun testing at low levels for mercury in the domestic background sampling. These sampling results will be used to relook at the mercury local limits prior to anything being determined on how to reduce mercury discharges.

6. See response to the above.

7. The extension the City asked for last March for the local limits evaluation had to do with the laboratory data they received and the number of zeroes they were given in the data rather than nondetect. At that time, local limits for TDS, barium and strontium were not discussed. At this time the City is collecting two weeks of data to use in the technical justification for local limits of TDS, barium and strontium.

8. There was no data included in Table 2, Summary of Effluent Metals Concentrations for TDS, barium and strontium because these parameters were not included in the 2008, 2009 and 2010 monthly reports. The modification to the NPDES permit went in to effect December 2010 and there is data for that one month.

9. When calculating the wasteload allocations, the allowable loadings were taken from the Fact Sheet that accompanies the NPDES permit. The Ohio River Basin Aquatic Life and Human Health summary table must not have been used in preparation of the fact sheet. The wasteload allocations have been recalculated and are attached for your review and comment.

The City of Warren is sampling for two weeks to obtain additional data to be used in the technical justification. The additional calculations you requested along with the revisions to the technical justification will be submitted to the Ohio EPA no later than October 28, 2011. If you should have additional questions, please feel free to contact me at (330)322-2567.

Very truly yours,
HAZEN AND SAWYER, P. C.

Deborah J. Houdeshell

Deborah J. Houdeshell, P.E.
Senior Associate

Cc: Tom Angelo, Warren WPC
Keith Folman, Warren WPC
Michael O'Brien, Mayor, City of Warren
Donna Kniss, NEDO – DSW
Cheryl Shields, Hazen and Sawyer, PC

Enclosures